

DEPARTMENT OF HEALTH AND HUMAN SERVICES  
NATIONAL INSTITUTES OF HEALTH  
NATIONAL LIBRARY OF MEDICINE  
Bethesda, Maryland

A G E N D A

69th Meeting of the

BOARD OF REGENTS

9:00 a.m., February 4-5, 1982

Board Room  
National Library of Medicine

MEETING OPEN: All day on February 4 and from 9:00 a.m. to 11:00 a.m. on February 5.  
MEETING CLOSED: From 11:00 a.m. to adjournment on February 5 for the review of grant applications.

CALL TO ORDER AND INTRODUCTORY REMARKS

Prof. Martha E. Williams

REMARKS BY THE ASSISTANT SECRETARY FOR HEALTH

Dr. Edward N. Brandt, Jr.

REMARKS BY THE ACTING DIRECTOR, NIH

Dr. Thomas E. Malone

COFFEE BREAK

CONSIDERATION OF MINUTES OF LAST MEETING

TAB I  
(Agenda Book)

Prof. Martha E. Williams

DATES OF FUTURE MEETINGS

Next Meeting: May 20-21, 1982 (Th-F)--CONFIRMED

Fall Meeting: October 7-8, 1982 (Th-F)--CONFIRMED

Winter Meeting: January 27-28 OR February 3-4, 1983--PROPOSED

PLEASE NOTE: American Society for Information Science  
Annual Meeting--October 17-21, 1982, Columbus

Association of Military Surgeons Annual Meeting  
October 17-21, 1982, Orlando

REPORT OF THE DIRECTOR, NLM

TAB II

Dr. Martin M. Cummings

'II. ADMINISTRATIVE REPORT TAB III Mr. Kenneth Carney

LUNCHEON CATERED IN CONFERENCE ROOM "B" 12:00-1:00

'III. NLM POSITION ON PUBLIC/PRIVATE SECTOR ISSUE Mr. Kent A. Smith

RESPONSE OF FOREIGN CENTERS AND VENDORS TO NLM PRICING STRUCTURE Mr. Kent A. Smith

REPORT OF THE BOARD SUBCOMMITTEE ON PRICING OF NLM PRODUCTS AND SERVICES Prof. Martha E. Williams  
Dr. Edward J. Huth  
Dr. Charles E. Molnar  
Mr. James F. Williams II

Discussion Board Members

X. REPORT ON NLM BOARD OF SCIENTIFIC COUNSELORS Dr. C. H. William Ruhe

COFFEE BREAK

. REPORT ON TECHNICAL SERVICES DIVISION TAB IV Ms. Betsy Humphreys  
Discussion Dr. Gwendolyn S. Cruzat  
Mr. William J. Welsh, and  
Board Members

I. COMPUTER SYSTEMS UTILIZATION TAB V Mr. Harry Bennett  
Discussion board Members

R E C E S S \* \* \* \* \*

DINNER . . . . . Bethesda Naval Officers' Club  
Cocktails . . . . . 6:30 p.m. "Bridge Room"  
Dinner . . . . . 7:30 p.m.

SPEAKER: Dr. Edward J. Huth  
Editor, Annals of Internal Medicine  
and Board Members

TOPIC: "FROM A TO B AND IN-BETWEEN"

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II. REPORT OF THE BOARD SUBCOMMITTEE ON REGIONAL MEDICAL LIBRARIES TAB VI Mrs. Lois Ann Colaianni  
Dr. William D. Mayer

Discussion Board Members

III. REPORT OF THE ACTING ASSOCIATE DIRECTOR FOR EXTRAMURAL PROGRAMS TAB VII Mr. Arthur J. Broering

A. EP Budget Projections and Funding Plans Tab A

B. Review of Board Operating Procedures -- "Guidelines for Adjustment by Staff in Time and Amount of Grant Award" Tab B

Discussion Board Members

COFFEE BREAK

IV. NEW BUSINESS Prof. Martha E. Williams

A. Appointment of Nominating Committee

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MEETING CLOSED FOR THE REVIEW OF GRANT APPLICATIONS -- 11:00 A.M.  
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V. SPECIAL APPLICATIONS (Gray Book)

A. Publication	<u>TAB I</u>	Dr. Jeanne L. Brand
B. Research	<u>TAB II</u>	Dr. Roger W. Dahlen
C. Resource	<u>TAB III</u>	" " " "

VI. SUMMARY STATEMENTS

A. Publication	<u>TAB IV</u>	Dr. Jeanne L. Brand
B. Special Scientific Project	<u>TAB V</u>	Dr. Roger W. Dahlen
C. Research	<u>TAB VI</u>	" " " "
D. New Investigator	<u>TAB VII</u>	" " " "
E. Resource	<u>TAB VIII</u>	" " " "
F. Improvement	<u>TAB IX</u>	" " " "

VII. ADJOURNMENT Prof. Martha E. Williams

DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH  
NATIONAL LIBRARY OF MEDICINE

BOARD OF REGENTS  
MINUTES OF THE 69TH MEETING  
FEBRUARY 4-5, 1982

BOARD ROOM  
NATIONAL LIBRARY OF MEDICINE  
BETHESDA, MARYLAND

DEPARTMENT OF HEALTH AND HUMAN SERVICES  
PUBLIC HEALTH SERVICE

THE BOARD OF REGENTS OF THE NATIONAL LIBRARY OF MEDICINE

Minutes of Meeting 1/2/  
February 4-5, 1982

The Board of Regents of the National Library of Medicine was convened for its sixty-ninth meeting at 9:00 a.m. on Thursday, February 4, 1982, in the Board Room of the National Library of Medicine, Bethesda, Maryland. Professor Martha E. Williams, Chairman of the Board of Regents, and Professor of Information Science, Coordinated Science Laboratory, University of Illinois, Urbana, presided. In accordance with P.L. 92-463 and the Determination of the Director, NIH, and as announced in the Federal Register on December 24, 1981, the meeting was open to the public from 9:00 a.m. to 5:00 p.m. on February 4 and from 9:00 a.m. to 10:30 a.m. on February 5, and closed from 10:30 to 11:30 a.m. on February 5 for the review, discussion, and evaluation of grant applications. A Board roster is enclosed under Attachment "A."

Board members present were:

Dr. Ismael Almodóvar  
Dr. Eloise E. Clark (February 4)  
Dr. Gwendolyn S. Cruzat  
Dr. Charles C. Edwards  
Mrs. Shirley Echelman  
Dr. Emmet F. Ferguson, Jr.  
Dr. Edward J. Huth  
Dr. C. Everett Koop (February 4)  
Dr. William D. Mayer  
Dr. John L. Townsend  
Professor Martha E. Williams

Alternates to Board members present were:

Dr. Faye G. Abdellah, representing Dr. C. Everett Koop  
Dr. Turner Camp, representing Dr. Donald L. Custis  
Colonel J. Michael Scotti, representing Lt. General Bernhard Mitemeyer  
Colonel Vernon Chong, representing Lt. General Paul W. Myers  
Rr. Admiral Frances T. Shea, representing Vice Admiral J. William Cox (February 4)  
Mr. William J. Welsh, representing Dr. Daniel J. Boorstin

Unable to attend:

Dr. Charles E. Molnar  
Vice Admiral J. William Cox  
Mr. James M. Hahn

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1/ For the record, it is noted that members absent themselves from the meeting when the Board is discussing applications from their respective institutions (interpreted to mean the entire system of which a member's institution is a part) or in which a conflict of interest might occur. Only when an application is under individual discussion will the Board member absent himself. This procedure does not apply to "en bloc" actions.

2/ The Board of Regents, when considering the extramural programs of NLM, also constitutes and serves as the National Medical Library Assistance Advisory Board.

National Library of Medicine staff members attending this meeting included:

Dr. Martin M. Cummings, Director  
Mr. Kent A. Smith, Deputy Director  
Mr. John Anderson, Director, Information Systems, OD  
Dr. Clifford A. Bachrach, Chief, Division of Library Operations, LO  
Mr. Harry D. Bennett, Director for Computer and Communications Systems, OCCS  
Mr. Albert Berkowitz, Chief, Reference Services Division, LO  
Dr. John B. Blake, Chief, History of Medicine Division, LO  
Dr. Jeanne L. Brand, Chief, International Programs Branch, EP  
Mr. Arthur J. Broering, Acting Associate Director for Extramural Programs, EP  
Mr. Ken Carney, Executive Officer  
Mrs. Lois Ann Colaianni, Deputy Associate Director for Library Operations, LO  
Dr. William G. Cooper, Acting Deputy Director for Research and Education, OD  
Dr. Roger W. Dahlen, Chief, Biomedical Information Support Branch, EP  
Mr. Earl B. Henderson, Acting Deputy Director, LHNCBC  
Ms. Betsy Humphreys, Chief, Technical Services Division, LO  
Dr. Henry M. Kissman, Associate Director for Specialized Information Services, SIS  
Mr. Sheldon Kotzin, Chief, Bibliographic Services Division, LO  
Dr. Joseph Leiter, Associate Director for Library Operations, LO  
Mr. Robert B. Mehnert, Chief, Office of Inquiries and Publications Management  
Mr. Stanley Phillips, Deputy Executive Officer  
Dr. Henry W. Riecken, Acting Associate Director for Planning, OD  
Mr. Arthur J. Robinson, Jr., EEO Coordinator, OD  
Dr. Harold M. Schoolman, Deputy Director for Research and Education, OD  
Dr. George Thoma, Acting Chief, Communications Engineering Branch, LHNCBC

Others present included:

Dr. Edward N. Brandt, Jr., Assistant Secretary for Health, HHS  
Dr. Thomas E. Malone, Acting Director, NIH  
Dr. H. Westley Clark, Senate Committee on Labor and Human Resources  
Dr. Joseph Clark, Office of Science & Technology Assessment, White House  
Dr. Warren Haas, President, Council on Library Resources, Inc.  
Miss Janet R. Healey, Program Analyst, Office of Program Planning and Evaluation, NIH  
Dr. Douglas Hussey, Policy Analyst, Division of Legislative Analysis, NIH  
Dr. C. H. William Ruhe, Chairman, Board of Scientific Counselors, NLM, and Senior Vice President of Scientific Affairs, American Medical Association  
Mrs. Ileen Stewart, Executive Secretary, Special Study Section, DRG, NIH  
Dr. David N. Sundwall, Senate Committee on Labor and Human Resources  
Mr. Samuel Waters, Associate Director, National Agricultural Library  
Mr. James F. Williams II, Associate Director of Libraries, Wayne State University, Purdy Library--Consultant

Members of the public present:

Ms. Carter Reynolds, Reporter: "The Blue Sheet"  
Ms. Peggy Miller, Staff, Kaye, Scholar, Fierman, Hays & Handler  
Ms. Gloria Ruby, Staff Member, Office of Technology Assessment

## I. OPENING REMARKS

Professor Martha E. Williams, Chairman, welcomed the Regents, consultants, and guests to the 69th meeting of the Board of Regents.

## II. REMARKS BY THE ASSISTANT SECRETARY FOR HEALTH

Dr. Brandt commented on the importance of the Regents' deliberations in charting the future course of the NLM and welcomed their advice on a wide range of issues affecting the Library. The services provided by NLM and health science libraries around the nation are vital to the biomedical community. He supports the role of NLM as a leader in applying modern technology to information storage and retrieval, and he is looking forward to seeing the report of the Association of American Medical Colleges on this subject that was described by Dr. Mayer.

## III. REMARKS BY THE CHAIRMAN

Professor Williams said that some of the private-sector concerns about NLM's role in providing information services are the result of misperceptions on the part of a few representatives of industry as to what NLM is doing. She pointed out that misinformation results, in part, from the inadequacy of communication between NLM and other members of the information arena and the misuse of partial information by others. She cited as an example erroneous data that were being used by some that grossly distort the amount of use of NLM's online services by the commercial sector. She presented data (based on a recent study she conducted about commercial-sector use of NLM's databases) in terms of both numbers of connect hours and pages printed and revenue derived from them. The figures showed that about 11% of connect hours and 28% of pages printed were attributed to the commercial sector. Represented in terms of both DIALOG dollars and BRS dollars and assigning half of the usage to each vendor, the total value for commercial use of Medline at NLM was \$1.2M. The usage and dollar value are considerably lower than commonly supposed by commercial vendors and point up the need for NLM to communicate such information widely to prevent misconceptions about the Library's services. She said that NLM should look at itself in the context of the whole information world and make deliberate efforts to relate to others in it.

## IV. REMARKS BY THE ACTING DIRECTOR, NIH

Dr. Malone reported that, despite some key vacancies, NIH continues to function smoothly. There will be an increase in the 1983 budget, and NIH has been spared the staff reductions (RIFs) that are affecting many other agencies. In fact, Dr. Malone said, NIH has been able to absorb some 500 employees of other agencies facing RIFs. He noted that NIH will be looking at whether NLM, in comparison to other NIH components, is being treated fairly in such areas as assessments for the central management fund and the general expense fund.

## V. CONSIDERATION OF MINUTES OF PREVIOUS MEETING

The Regents approved without change the minutes of the October 29-30, 1981, meeting.

## VI. DATES FOR FUTURE MEETINGS

The Board will meet next on May 20-21. The dates of October 7-8 were confirmed for the fall meeting, and January 27-28, 1983, are the tentative dates for the following meeting.

## VII. ADMINISTRATIVE REPORT

Mr. Kenneth G. Carney, NLM Executive Officer, introduced three new staff members: Stanley Phillips, Deputy Executive Officer; Stella Graves, Personnel Officer; and Mark Rotariu, Financial Management Officer. Mr. Carney presented budget figures that demonstrated NLM's appropriations have fallen behind the rate of inflation. The actual obligations for FY 1980 were \$46,352,000, those for FY 1981 were \$46,748,000, and the Library is now operating under a continuing resolution at the level of \$44,402,000. To counter the effects of inflation, Mr. Carney noted, the FY 1982 budget would have to be \$48,750,000.

Staffing statistics reveal that, after having recovered from losses caused by the move of NMAC from Atlanta in 1980, the number of permanent full-time staff is again eroding because of the current freeze on hiring from outside of the Department. From 481 staff on June 30, 1981, our strength had decreased to 466 on December 31, 1981. Using the new system of "full-time equivalency," which included various part-time and other special categories of employees, NLM has an actual strength of about 525.

Mr. Carney also reported on the renovation of the NLM building now under way. This work will restore the building to its originally intended purpose of housing the collection and the processing functions associated with it. In addition, the renovation will include a new sprinkler system, improvements in heating, ventilation, and air conditioning, and a coaxial cable system for data communications. The renovation was begun in July 1981 and is scheduled for completion by December 1982.

## VIII. REPORT OF THE DIRECTOR, NLM

Dr. Cummings welcomed to the Library Dr. C. Everett Koop, PHS Surgeon General, and congratulated Dr. Faye G. Abdellah on her appointment as Deputy Surgeon General. The Director also congratulated Professor Martha Williams on being elected a fellow of the AAAS. For the benefit of the new Regents, Dr. Cummings gave a brief overview of selected NLM activities. He also gave a status report on how the 1982 budget (under the continuing resolution) was being apportioned among the NLM components. Dr. Cummings cited several recently published studies on the coverage and timeliness of various indexing/abstracting and retrieval services. NLM is going to pay close attention to such studies. Although Index Medicus and NLM's online services fared well in these comparisons, studies of this kind might yield valuable suggestions for improving the Library's services.

Dr. Cummings reported on the continuing studies of NLM: A team from the General Accounting Office is at NLM reviewing data pertaining to the pricing of NLM services; the Congressional Office of Technology Assessment (OTA) is preparing a final report on NLM activities, with emphasis on MEDLARS; the Department of Health

and Human Services will conduct a study on NLM as requested by the Office of Management and Budget under the Paperwork Reduction Act; and the Assistant Secretary for Health has requested that a study be made by NLM and the National Center for Health Statistics about the collection of health data in the Public Health Service. Dr. Riecken reported on the January 7 meeting of a special panel to review the draft OTA report, "MEDLARS and Health Information Policy." The panel members reached a general agreement that NLM should continue to publish Index Medicus, MEDLARS databases and online access should be made available with cost recovery limited to the actual cost of reproduction and access, and that there not be a differential pricing structure for different classes of users. The panel was divided on the question of whether NLM should continue to provide online services, but there was "a minor agreement that there is no compelling reason for NLM to stop providing online services." Gloria Ruby of OTA said that the draft report is being rewritten and will be submitted to the Congress by the end of March.

Dr. Cummings reported about the Library's priorities in the face of budgetary constraints. Highest priority goes to improving basic library and information services; MEDLARS III is an important part of this effort. Next is an emphasis on maintaining reference and bibliographic services, especially through a reconfigured Regional Medical Library network. Other important priorities are continuing NLM's extramural grant programs and toxicology information services, and maintaining a reasonable level of research and development through the Lister Hill Center and the National Medical Audiovisual Center.

#### IX. REPORT ON DATABASE PRICING

Mr. Kent Smith, NLM Deputy Director, reported that the response from the foreign MEDLARS centers to the change from a fixed fee to a rate schedule based on use has been positive. All existing centers will renew their agreements with the Library. The reaction from domestic database vendors has been mixed: Bibliographic Retrieval Service at first protested that the new system would be too expensive, but they have since signed a leasing agreement. Lockheed DIALOG agreed to the new rate structure without complaint. The System Development Corporation may soon apply to lease the tapes.

Mr. Smith then recounted NLM's efforts over the years to establish fair and reasonable prices for leasing its databases and for online access. NLM has been accused both of setting prices too high and too low. Last year a foreign publishing firm objected strongly to NLM's pricing policies and pressed its case against the Library in the Congress, the OMB, and the Department. NLM has prepared a working paper for the Office of the Secretary that rebuts their allegations. The public/private sector issue will be a continuing problem for NLM, and the Library will need the guidance of the Regents in setting pricing policies.

Professor Martha Williams reported on the deliberations of a Board Subcommittee established last October to review NLM's policies for pricing MEDLARS services. The Subcommittee identified three cost areas: online charges, fees for leasing the databases, and software fees. Print products were excepted because the pricing

for them has been mandated by law. The elements, which costs should be recovered, were discussed by the full Board, and the Subcommittee was directed to present recommendations at the May Regents' meeting that would establish NLM's policy on pricing online access, database leasing, and software.

#### X. REPORT ON NLM BOARD OF SCIENTIFIC COUNSELORS

Dr. C. H. William Ruhe of the American Medical Association, and Chairman of the NLM Board of Scientific Counselors, reported on the first two meetings of this new advisory group. The Board of Scientific Counselors was created to provide scientific and technical guidance to the Library's intramural research programs. The first two meetings were largely "information-gathering," and the Board will now concentrate on examining closely one or two Lister Hill Center projects at each meeting. The Counselors believe that LHC staff are performing well, but there are questions about the adequacy of funding and number of staff. The Board also hopes that a new director will be selected soon for the Lister Hill Center. The Board of Scientific Counselors will be conducting meetings twice a year, at least for the next few years. Eventually the Board may meet only once a year.

#### XI. REPORT ON THE TECHNICAL SERVICES DIVISION

Ms. Betsy Humphreys, Chief of the Technical Services Division (TSD), described the functions and operations of the Division. TSD is responsible for selecting, acquiring, and cataloging the monographic and serial literature. The goals of the Division are (1) to process the literature quickly in order to make it available to users without delay and (2) to provide authoritative bibliographic data for use by other libraries.

Selecting materials for the Library is guided by the policies in the Scope and Coverage Manual, 1977 edition. This manual defines both the range of subject areas to be collected and the kinds of materials within those subjects. Materials deemed appropriate are acquired through book dealers and subscription agents whenever possible, rather than ordering directly from publishers. In some cases NLM acquires materials through gift and exchange arrangements. In Fiscal Year 1981 \$1.81 million was spent on acquiring materials. After receipt and processing, new titles are cataloged by the Division, using the same NLM Medical Subject Headings employed in indexing journal articles. A high priority is to reduce the backlog of uncataloged monographs--mostly foreign-language materials. By using a more limited level of cataloging for backlog items and contractor assistance TSD has been successful in reducing the backlog of 19,410 items by 30%, and further reductions will be made over the coming months. TSD also cooperates with the technical services staff of the Library of Congress and the National Agricultural Library to explore ways to avoid duplication and improve service.

The Division annually proofs and edits some 70 issues of various bibliographic publications, such as the NLM Current Catalog. The bibliographic data are also available in CATLINE and other online databases. The planned MEDLARS III development will improve the automation capability of TSD services, and Division staff

services, and Division staff are heavily involved in the development of the new system. Related to this is the conversion to machine-readable form of cataloging records from the period 1801-1964. This project is progressing well under contract. Also related to MEDLARS III is the construction of the National Biomedical Serials Holdings Database which is a necessary prerequisite for automated routing of document requests in the new system. Over 400,000 machine-readable holdings statements, representing the serials holdings of biomedical libraries throughout the country, have been collected at NLM over the last few months.

Following Ms. Humphrey's presentation, Dr. Cruzat commented that TSD is to be complimented for reducing its backlog of uncataloged items, for using off-site book dealers and subscription agents to check in materials, and for the very important work of creating the National Biomedical Serials Holdings Database. She recommended that TSD staff be maintained at its present level and not allowed to diminish if TSD is to keep up with incoming materials. Dr. Cruzat also commented that TSD's published tools are very valuable to the medical library community; she agreed that the Scope and Coverage Manual should be reviewed and updated. Mr. Welsh noted that the Library of Congress places more emphasis than NLM on gifts and exchanges as a source of acquiring material. He also was enthusiastic about TSD's off-site check-in arrangements, and he agreed that minimum-level cataloging was a useful tool for reducing the backlog.

## XII. COMPUTER SYSTEMS UTILIZATION

Mr. Harry Bennett, Director of the Office of Computer and Communications Systems, reported on how the MEDLARS computer system is performing. The new IBM 370/168 MP System has been operating for more than one year and it has handled the workload extremely well. Mr. Bennett said that improvements to the system have resulted not only in an increased workload capacity but also great increases in efficiency. He cited statistics on ELHILL usage, offline prints, connect hours, and input/output transactions. Peak usage of the system is 160 simultaneous online users; our current average is 75. Dr. Cummings noted that the amortized cost of the MEDLARS computers is quite low because the original computers were used for 10 years and the replacement computers were acquired from NIH at far below their market value. NLM is now investigating the possibility of again acquiring larger used computers from NIH. If NLM is successful, the cost to the Library will again be minimal, he said.

## XIII. RML RECONFIGURATION UPDATE

Mrs. Lois Ann Colaianni, Deputy Associate Director for Library Operations, reported on the progress that has been made since the October Board meeting on the new configuraton of the Regional Medical Library Program.

At the meeting of the RML Directors in Omaha in mid-November, the Directors, Associate Directors and NLM Staff discussed the changes in the RML program and the reconfiguration of the regions and their proposed geographic boundaries (see Attachment B). Although in October no changes were suggested for individual states, Puerto Rico and South Dakota requested realignment.

Effective in the Fall of 1982, Puerto Rico will be aligned with the Northeast Region, rather than remain in the Southeast Region, since Puerto Rico's health professional ties are predominantly centered in New York as part of the New York Health Systems Agency. South Dakota will be included in the Midwest Region.

The RFP (Request for Proposal) has been issued, after a review of the Work Statement by Dr. William Mayer and Mr. James Hahn, members of the Board Subcommittee for RMLs. The final document incorporates their recommendations. The Statement of Work covers the "basic program" and "three optional tasks." Prospective bidders must bid on the basic program, and may bid on one, two, three or none of the optional tasks. After describing the role of the RMLs in providing leadership and management, the RFP addresses four specific goals:

1. To provide basic information services for all health professionals.
2. To improve the level of service at health science libraries.
3. To encourage resource-sharing.
4. To improve the transfer of biomedical information.

The RFP encourages the use of "fee-for-service charges" through which RMLs or resource libraries could recover direct costs for some services. A national document-delivery plan was also included in the RFP which calls for a maximum charge for document delivery in the Network and encourages the development and use of locator tools.

The next step, Mrs. Colaianni said, will be the process of selecting and awarding seven contracts. Proposals are due at the NLM Office of Contracts Management by April 12. After the technical review in the Spring, the remainder of the review process should be completed during the summer. NLM hopes to announce the seven RMLs by mid-September. The current contracts will run through October with two months of partial funding for phasing out some Regional Medical Libraries and phasing in others.

Mrs. Colaianni asked for comments from Dr. Mayer. Some of the concerns he had in the beginning, Dr. Mayer noted, were not with the issues of the basic policies passed by the Board in October, but rather with how to deal with the people in the field who were being confronted with this marked change in this important program. He acknowledged the effort made by NLM staff in producing the RFP.

#### XIV. REPORT OF THE ACTING ASSOCIATE DIRECTOR FOR EXTRAMURAL PROGRAMS

Mr. Arthur J. Broering discussed the FY 1982 projected budget for NLM's Extramural Programs. Since the budget was presented at the October Board meeting, some adjustments were made, particularly to noncompeting grant awards in view of the limited funds available. Although no actual appropriations have been made, Extramural Programs has been working with an assumed spending level of \$7.5 million as authorized by the one-year extension of the Medical Library Assistance Act (MLAA). In order to stabilize funding for competing awards, noncompeting awards for FY 1982 were reduced by an average of about six percent in certain program areas. This procedure will result

in a total of \$1.05 million for new awards during the fiscal year. Most of the reductions were made in the Research Grants Program. Other programs do not provide indirect costs or they involve relatively small individual awards. Of the \$1.05 million available for new awards in FY 1982, \$275,000 have been obligated, leaving a total of \$775,000 for awards to be made after this and the May Board meetings.

Mr. Broering then briefly reported on the progress made since the October meeting when the Board recommended that NLM take steps to articulate its program interests in the research aspects of computers in medicine. The first step was taken this January when four representatives of other agencies met to discuss interests and future directions in the computers-in-medicine area. At the next Board meeting a final report will be made on the subject. Dr. Mayer strongly endorsed the recommendations of the January meeting to maintain a continuing dialogue with other groups that have similar or perhaps overlapping interests in the computers-in-medicine area. He also felt that it will be necessary to define precisely NLM's role in this field.

Dr. Cummings pointed out that NLM made programmatic commitments to computers in medicine some eight years ago when there was evidence of a tremendous need for the training of health professionals and others in this area. A special panel at the time reviewed gap areas and identified computer technology as a high priority area. Congress expressed interest in this direction. Dr. Cummings voiced his concern that NLM's small extramural budget of \$7.5 million may not be able to endure the significant investment needed for this program. The Board will have to reexamine this question and consider whether NLM has not already done its share. The MLAA funds could be freed for other information- and library-oriented activities. Dr. Cummings acknowledged that the program has become very successful, and he does not want to see it damaged, but it needs to be determined whether it may not be more appropriate for another NIH Institute to support this activity.

#### Board Operating Procedures

As required annually, Mr. Broering presented for review the Board Operating Procedures--"Guidelines for Adjustments by Staff in Time or Amount of Grant Award." The Board reaffirmed the guidelines without revision.

#### XV. NEW BUSINESS

1. The Chairman appointed Mrs. Shirley Echelman to the Board Subcommittee on Pricing of NLM Products and Services.
2. The Chairman appointed a Nominating Committee for the selection of next year's Board chairman, consisting of Mr. Welsh, Chairman, Dr. Camp and Dr. Almodovar. The Committee will make its recommendations to the Board at the May meeting.

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MEETING CLOSED FOR THE REVIEW OF GRANT APPLICATIONS - - 10:30 A.M.  
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XVI. REVIEW OF PENDING APPLICATIONS

Before proceeding with the consideration of pending applications, Dr. Brand informed Board members of confidentiality and conflict-of-interest procedures and reminded them to sign, at the conclusion of the grant application review, the statement certifying that they had not participated in the discussion of any application where conflicts of interest might occur.

The Board concurred with the recommendations of the Extramural Programs Subcommittee. A total of 72 applications was reviewed, of which 39 were recommended for approval, 28 for disapproval, and five for deferral. Grant applications recommended for approval by the Board are listed in the summary actions (Attachment C). Interim actions taken by the Extramural Programs' staff since the October Board meeting were noted.

XVII. ADJOURNMENT

The meeting was adjourned at 11:30 a.m., Friday, February 5, 1982.

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Wednesday, February 3, 1982, 2:00 to 4:30 p.m.  
(EP Subcommittee--List of Attendees under Attachment D)

Thursday, February 4, 1982, 9:00 a.m. to 5:00 p.m.  
Friday, February 5, 1982, 9:00 to 11:30 a.m.

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ACTIONS TAKEN BY THE BOARD OF REGENTS

1. The Board reaffirmed the Board Operating Procedures.
2. The Chairman appointed Mrs. Shirley Echelman to the Board's Subcommittee on Pricing of NLM Products and Services.
3. The Chairman appointed a nominating committee for the selection of next year's Board chairman, consisting of Mr. Welsh, Chairman, Dr. Camp, and Dr. Almodóvar.
4. The Board concurred with the recommendations of the Extramural Programs Subcommittee. Grant applications recommended for approval are listed in the summary actions. (Attachment C)

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I hereby certify that, to the best of my knowledge, the foregoing minutes and attachments are accurate and complete.

*Martin M. Cummings*  
\_\_\_\_\_  
Martin M. Cummings, M.D. (Date) 3/10/82  
Executive Secretary

*Martha E. Williams* 3/18/82  
\_\_\_\_\_  
Martha E. Williams (Date)  
Chairman

CHAIRMAN

WILLIAMS, Martha E. (8/3/82)  
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UZAT, Gwendolyn S., Ph.D. (8/3/84)  
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HELMAN, Shirley (8/3/85)  
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WARDS, Charles C., M.D. (8/3/85)  
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TOWNSEND, John L., M.D. (8/3/83)  
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Alternate

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SCOTTI, Michael J., Col., MC, USA  
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Personnel Support Agency  
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EXECUTIVE SECRETARY

CUMMINGS, Martin M., M.D.  
Director  
National Library of Medicine  
Bethesda, MD 20209 301-496-6221



APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/  
 (Arranged numerically by program)

COUNCIL DATE: FEBRUARY 1982

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
2 R01 LM 03120-04A1		04A1 65,800
A COMPUTER ASSISTANT FOR INFORMATION RETRIEVAL		05 72,370
		06 82,340
2 R01 LM 03245-04		04 8,400
THE CHANGING CONCEPT OF FEVER IN THE 19TH CENTURY		
1 R01 LM 03746-01A1		01A1 9,623
C.E.A. WINSLOW: A BIOGRAPHY		02 10,356
		9,956
1 R01 LM 03888-01 DUAL: RR		01 23,610
PRIMATES OF THE WORLD: DISTRIBUTION, CONSERVATION		
1 R01 LM 03898-01		01 9,820
TRANSLATION OF MEDICAL CARE AND CHILDBEARING IN KOREA		
1 R01 LM 03910-01		01 9,915
MEDICAL THERAPEUTICS IN AMERICA, 1820 - 1885		02 1,392
1 R01 LM 03913-01		01 48,920
BOOK - ALLERGENIC PLANTS OF THE AMERICAN SOUTHWEST		
1 R01 LM 03915-01		01 20,800
MICROCOMPUTER GRAPHICS FOR TEACHING ORTHOPAEDIC SURGERY		
1 R01 LM 03926-01 DUAL: AI		01 5,932
AN ATLAS OF ELECTRON MICROSCOPICAL ANATOMY OF IXODID TICK		
1 R01 LM 03930-01		01 23,611
BRUNONIANISM: A MEDICAL REFORM MOVEMENT		

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/  
 (Arranged numerically by program)

COUNCIL DATE: FEBRUARY 1982

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 RO1 LM 039333-01	APPLICATIONS OF MEDICAL LANGUAGE PROCESSING	01 109,104 02 118,317 03 130,544
1 RO1 LM 039339-01	PUBLICATION OF BOSMA ATLAS OF THE NEONATAL HEAD	01 28,605 02 5,250
1 RO1 LM 03941-01	BENEFITS, RISKS, AND COSTS IN AMBULATORY MEDICINE:	01 46,154
1 RO1 LM 03942-01	GEOGRAPHY OF ANIMAL VIRAL DISEASE	01 4,200
1 RO1 LM 03952-01	GUIDE TO LITERATURE OF MEDICINAL USES OF NATURAL PRODUCT	01 24,150 02 25,030
1 RO1 LM 03957-01	PERCEPTION AND COGNITION IN MEDICAL DIAGNOSIS	01 129,294 02 156,693 03 182,539
1 RO1 LM 03963-01	GRECO-ROMAN NUTRITION & PHARMACOLOGY: ORIBAS. MEDICA 1-V	01 26,000 02 26,900
1 RO1 CA 32393-01	DUAL: LM BIOMEDICAL DATA: ARCHIVES AND LABORATORY	01 58,510 02 32,855

1/Approval recommendations are not final but are the basis upon subsequent BID determinations and negotiations will determine final awards.

(Arranged numerically by program)

COUNCIL DATE: FEBRUARY 1982

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 G08 LM 03923-01	GRANT FOR COMPUTER SERVICES AT ALTOONA HOSPITAL LIBRARY	01 29,823 02 30,270
1 G08 LM 03953-01	MEDIA RESOURCES PROGRAM FOR OPTOMETRY STUDENTS	01 88,531 02 42,470 03 34,830

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL I/  
 (Arranged numerically by program)

COUNCIL DATE: FEBRUARY 1982

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 G07 LM 03739-01A1	SINGLE-INSTITUTION GRANT	4,000
1 G07 LM 03754-01A1	SINGLE-INSTITUTION GRANT	4,367
1 G07 LM 03909-01	SINGLE-INSTITUTION GRANT	4,400
1 G07 LM 03911-01	SINGLE-INSTITUTION GRANT	4,000
1 G07 LM 03920-01	CONSORTIUM IMPROVEMENT GRANT	16,920
1 G07 LM 03925-01	SINGLE-INSTITUTION GRANT	4,000
1 G07 LM 03935-01	CONSORTIUM IMPROVEMENT GRANT	28,538
1 G07 LM 03938-01	SINGLE-INSTITUTION GRANT	4,000
1 G07 LM 03940-01	SINGLE-INSTITUTION GRANT	4,000
1 G07 LM 03943-01	SINGLE-INSTITUTION GRANT	4,000
1 G07 LM 03951-01	SINGLE-INSTITUTION GRANT	4,000

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/  
(Arranged numerically by program)

COUNCIL DATE: FEBRUARY 1982

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 G07 LM 03955-01	CONSORTIUM IMPROVEMENT GRANT	33,817
1 G07 LM 03959-01	SINGLE-INSTITUTION GRANT	4,300
1 G07 LM 03960-01	SINGLE-INSTITUTION GRANT	4,000
1 G07 LM 03964-01	CONSORTIUM IMPROVEMENT GRANT	12,000

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

B O A R D O F R E G E N T S

EXTRAMURAL PROGRAMS SUBCOMMITTEE MEETING

February 3, 1982

Subcommittee Members Present:

Dr. Gwendolyn S. Cruzat  
Dr. William D. Mayer  
Dr. John L. Townsend  
Col. Michael J. Scotti

NLM Staff Present:

Mr. Arthur J. Broering, Acting Associate Director for Extramural Programs  
Mrs. Helen Bennison, Grants Management Specialist, EP  
Dr. Jeanne L. Brand, Chief, International Programs Branch, EP  
Mr. Peter A. Clepper, Programs Officer, EP  
Mrs. Karin K. Colton, Committee Management Assistant  
Dr. Roger W. Dahlen, Chief, Biomedical Information Support Branch, EP  
Mrs. Rose Marie Holston, Program Analyst, Office of Program Planning and Evaluation, EP  
Mrs. Frances E. Johnson, Program Officer, EP  
Mrs. M. Kathleen Nichols, Grants Management Specialist, EP  
Mrs. Marguerite L. Pusey, Administrative Officer, EP  
Ms. Roberta Spolin, Grants Management Specialist, EP  
Mr. Randall Worthington, Program Officer, EP  
Dr. Galina V. Zarechnak, Program Officer, EP

DEPARTMENT OF HEALTH AND HUMAN SERVICES  
NATIONAL INSTITUTES OF HEALTH  
NATIONAL LIBRARY OF MEDICINE  
Bethesda, Maryland

A G E N D A

70th Meeting of the

BOARD OF REGENTS

9:00 a.m., May 20-21, 1982

Board Room  
National Library of Medicine

MEETING OPEN: All day on May 20 and from 9:00 a.m. to 12:00 noon on May 21.  
MEETING CLOSED: From 12:00 noon to adjournment on May 21 for the review of grant applications.

CALL TO ORDER AND INTRODUCTORY REMARKS

Prof. Martha E. Williams

. CONSIDERATION OF MINUTES OF LAST MEETING

TAB I  
(Agenda Book)

I. DATES OF FUTURE MEETINGS

Next Meeting: October 7-8, 1982 (Th-F)--CONFIRMED

Winter Meeting: January 27-28, 1983 (Th-F)--CONFIRMED

Spring Meeting: May 19-20 OR May 26-27, 1983 (Th-F)

PLEASE NOTE: Medical Library Association Annual Meeting  
May 28 - June 2, 1983 - Houston

' REPORT OF THE DIRECTOR, NLM

TAB II

Dr. Martin M. Cummings

COFFEE BREAK

REPORT FROM THE BOARD SUBCOMMITTEE ON  
PRICING OF NLM PRODUCTS AND SERVICES

Prof. Martha E. Williams  
and Subcommittee Members

Discussion

Board Members

(Photograph to be taken of Board in front of Library, weather permitting, otherwise in front of mural in LHC Bg.)

LUNCHEON CATERED IN CONFERENCE ROOM "B" 12:10-1:00  
(Showing of new NLM film.)

I. REMARKS BY THE DIRECTOR, NIH Dr. James B. Wyngaarden

II. AAMC STUDY: "The Library in the Academic Health Sciences Center Information Chain-- Future Library Information Management Roles" TAB III Dr. William D. Mayer  
Dr. John A. D. Cooper  
Dr. William G. Cooper, Discussant

Discussion Board Members

III. UPDATE ON MEDLARS III TAB IV Mr. John E. Anderson

Discussion Board Members

COFFEE BREAK

X. LHC/NMAC PROGRAM DIRECTION AND REPORT OF THE APRIL BOARD OF SCIENTIFIC COUNSELORS' MEETING TAB V Dr. William G. Cooper  
LHC/NMAC Subcommittee Members and Dr. C. H. William Ruhe, Discussants

Discussion Board Members

. REPORT OF THE NOMINATING COMMITTEE Mr. William J. Welsh

R E C E S S \* \* \* \* \*

DINNER ..... BETHESDA HOLIDAY INN  
Cocktails (Cash Bar) .....6:30 p.m. 8120 Wisconsin Avenue  
Dinner .....7:30 p.m. Bethesda, Maryland

SPEAKER: Dr. C. Everett Koop  
Surgeon General, PHS, and  
Member of the Board of Regents

TOPIC: "Disposable Technology in Hospitals"

R E C O N V E N E : Friday, May 21, 9:00 a.m.

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- |   |                        |  |
|---|------------------------|--|
| <p>I. LIBRARY OPERATIONS -- OVERVIEW</p> <p>Discussion</p> <p>COFFEE BREAK</p>                  | <p><u>TAB VI</u></p>   | <p>Mrs. Lois Ann Colainni<br/>Dr. Gwendolyn S. Cruzat,<br/>Mrs. Shirley Echelman,<br/>Discussants</p> <p>Board Members</p> |
| <p>II. DISCUSSION OF NIH DIRECTOR'S<br/>ADVISORY COMMITTEE REPORTS</p> <p>Discussion</p>        | <p><u>TAB VII</u></p>  | <p>Dr. Henry Riecken</p> <p>Board Members</p>  |
| <p>III. REPORT ON RESOURCE GRANTS TO<br/>FOR-PROFIT ORGANIZATIONS</p> <p>Discussion</p>         | <p><u>TAB VIII</u></p> | <p>Mr. Arthur J. Broering<br/>and EP Subcommittee</p> <p>Board Members</p>   |
| <p>IV. REPORT ON COMPUTERS-IN-MEDICINE<br/>RESEARCH GRANTS' PROGRAM GOALS</p> <p>Discussion</p> | <p><u>TAB IX</u></p>   | <p>Mr. Peter A. Clepper<br/>Dr. William D. Mayer,<br/>Discussant</p> <p>Board Members</p>                                  |

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MEETING CLOSED FOR THE REVIEW OF GRANT APPLICATIONS - 12:00 NOON

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- |  |   |   |
|--|---|---|
| <p>V SPECIAL APPLICATIONS</p> <p>A. Construction - HRA</p> <p>B. Publication</p> <p>C. Training</p> <p>D. Research</p> <p>E. Resource</p> <p>F. Program Project</p> <p>G. New Investigator</p> | <p>(Gray Book)</p> <p><u>TAB I</u></p> <p><u>TAB II</u></p> <p><u>TAB III</u></p> <p><u>TAB IV</u></p> <p><u>TAB V</u></p> <p><u>TAB VI</u></p> | <p>Mr. Arthur J. Broering<br/>Dr. Jeanne L. Brand<br/>Dr. Roger W. Dahlen<br/>" " " "<br/>" " " "<br/>" " " "<br/>" " " "</p> |
| <p>VI. SUMMARY STATEMENTS</p> <p>A. Publication</p> <p>B. Special Scientific Project</p> <p>C. Research</p> <p>    1. New Investigator</p> <p>D. Resource</p> <p>    1. Improvement</p>        | <p><u>TAB VII</u></p> <p><u>TAB VIII</u></p> <p><u>TAB IX</u></p> <p><u>Tab A</u></p> <p><u>TAB X</u></p> <p><u>Tab A</u></p>                   | <p>Dr. Jeanne L. Brand<br/>Dr. Roger W. Dahlen<br/>" " " "<br/>" " " "<br/>" " " "</p>  |
| <p>VII. ADJOURNMENT</p>  |   | <p>Prof. Martha E. Williams</p>   |

DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH  
NATIONAL LIBRARY OF MEDICINE

BOARD OF REGENTS  
MINUTES OF THE 70TH MEETING  
MAY 20-21, 1982

BOARD ROOM  
NATIONAL LIBRARY OF MEDICINE  
BETHESDA, MARYLAND

DEPARTMENT OF HEALTH AND HUMAN SERVICES  
PUBLIC HEALTH SERVICE

THE BOARD OF REGENTS OF THE NATIONAL LIBRARY OF MEDICINE

Minutes of Meeting 1/ 2/  
May 20-21, 1982

The Board of Regents of the National Library of Medicine was convened for its seventieth meeting at 9:00 a.m. on Thursday, May 20, 1982, in the Board Room of the National Library of Medicine, Bethesda, Maryland. Professor Martha E. Williams, Chairman of the Board of Regents, and Professor of Information Science, Coordinated Science Laboratory, University of Illinois, Urbana, presided. In accordance with P.L. 92-463 and the Determination of the Director, NIH, and as announced in the Federal Register on April 13, 1982, the meeting was open to the public from 9:00 a.m. to 4:30 p.m. on May 20 and from 9:00 a.m. to 12:30 p.m. on May 21, and closed from 12:30 to 1:30 p.m. on May 21 for the review, discussion, and evaluation of grant applications. A Board roster is enclosed under Attachment "A."

Board members present were:

Dr. Ismael Almodóvar  
Dr. Gwendolyn S. Cruzat  
Dr. Charles C. Edwards  
Mrs. Shirley Echelman  
Dr. Emmet F. Ferguson, Jr.  
Dr. C. Everett Koop (May 20)  
Dr. William D. Mayer  
Dr. Charles E. Molnar  
Dr. John L. Townsend  
Professor Martha E. Williams

Alternates to Board members present were:

Dr. Faye G. Abdellah, representing Dr. C. Everett Koop  
Mr. James M. Hahn, representing Dr. Donald L. Custis  
Colonel J. Michael Scotti, representing Lt. General Bernhard Mitemeyer  
Colonel Vernon Chong, representing Lt. General Paul W. Myers  
Rr. Admiral Frances T. Shea, representing Vice Admiral J. William Cox  
Mr. William J. Welsh, representing Dr. Daniel J. Boorstin (May 20)

Unable to attend:

Dr. Eloise E. Clark  
Dr. Edward J. Huth

-----  
1/ For the record, it is noted that members absent themselves from the meeting when the Board is discussing applications from their respective institutions (interpreted to mean the entire system of which a member's institution is a part) or in which a conflict of interest might occur. Only when an application is under individual discussion will the Board member absent himself. This procedure does not apply to "en bloc" actions.

2/ The Board of Regents, when considering the extramural programs of NLM, also constitutes and serves as the National Medical Library Assistance Advisory Board.

National Library of Medicine staff members attending this meeting included:

Dr. Martin M. Cummings, Director  
Mr. Kent A. Smith, Deputy Director  
Dr. Harold M. Schoolman, Deputy Director for Research and Education, OD  
Mr. John Anderson, Director, Information Systems, OD  
Dr. Clifford A. Bachrach, Chief, Division of Library Operations, LO  
Mr. Harry D. Bennett, Director for Computer and Communications Systems, OCCS  
Mr. Albert Berkowitz, Chief, Reference Services Division, LO  
Dr. John B. Blake, Chief, History of Medicine Division, LO  
Dr. Jeanne L. Brand, Chief, International Programs Branch, EP  
Mr. Arthur J. Broering, Acting Associate Director for Extramural Programs, EP  
Mr. Ken Carney, Executive Officer  
Mrs. Lois Ann Colaianni, Deputy Associate Director for Library Operations, LO  
Dr. William G. Cooper, Acting Deputy Director for Research and Education, OD  
Miss Mary E. Corning, Assistant Director, International Programs, OD  
Dr. Roger W. Dahlen, Chief, Biomedical Information Support Branch, EP  
Mr. Charles Goldstein, Chief, Computer Technology Branch, LHNCBC  
Mrs. Maxine Hanke, Director RML IV, OD  
Mr. B. Earl Henderson, Acting Deputy Director, LHNCBC  
Ms. Betsy Humphreys, Chief, Technical Services Division, LO  
Dr. Henry M. Kissman, Associate Director for Specialized Information Services, SIS  
Mr. Sheldon Kotzin, Chief, Bibliographic Services Division, LO  
Mrs. Linda Kudrick, Chief, Materials Utilization Branch, NMAC  
Dr. Joseph Leiter, Associate Director for Library Operations, LO  
Mr. Robert B. Mehnert, Chief, Office of Inquiries and Publications Management  
Dr. A. Donald Merritt, Chief, Health Professions Applications Branch, LHNCBC  
Mr. Stanley Phillips, Deputy Executive Officer  
Mrs. Maria Pinho, Chief, Applications Support Branch, OCCS  
Dr. Henry W. Riecken, Acting Associate Director for Planning, OD  
Dr. Elliott Siegel, Senior Scientist, Health Professions Application Branch, LHNCBC  
Mr. Bernard Silverstein, Chief, Medlars Support Branch, OCCS  
Ms. Barbara Sternick, Chief, Data Communications Branch, OCCS

Others present included:

Dr. James B. Wyngaarden, Director, NIH  
Dr. Warren Haas, President, Council on Library Resources, Inc.  
Mr. Douglas Hussey, Policy Analyst, Division of Legislative Analysis, NIH  
Dr. Saul Jarcho, New York Academy of Medicine--Consultant  
Dr. Alan Mayers, Executive Secretary, Health Care Technology Study Section,  
National Center for Health Services Research  
Dr. C. H. William Ruhe, Chairman, Board of Scientific Counselors, NLM  
Mrs. Ileen Stewart, Executive Secretary, Special Study Section, DRG, NIH  
Dr. Suzanne Stimler, Director Biotechnology Resources Program, Division of  
Research Resources, NIH.  
Mr. James F. Williams II, Associate Director of Libraries, Wayne State University,  
Purdy Library--Consultant

Members of the public present:

Dr. Ernest M. Allen, Private Citizen  
Mr. Patrick Hawkins, Staff, Kaye, Scholar, Fierman, Hays & Handler  
Ms. Carter Leonard, Reporter, "The Blue Sheet"

## I. OPENING REMARKS

Professor Martha E. Williams, Chairman, welcomed the Regents, consultants, and guests to the 70th meeting of the Board of Regents.

## II. CONSIDERATION OF MINUTES OF PREVIOUS MEETING

The Regents approved without change the minutes of the February 4-5, 1982, meeting.

## III. REMARKS BY THE CHAIRMAN

Professor Williams addressed the issue of information services provided by the public and private sectors. She reported that certain basic information services are provided by the public sector--defense, security, medicine (public health), education and scientific information. Three of these services--medicine, education, and information--are provided by both the public and private sectors. This results in a desirable balance and eliminates the extremes. In the area of information services, the extremes lead (on the "left") to exclusively government-controlled information products and services, controlled access to them, lack of innovation, and totally controlled media; on the "right" the extreme would result in the availability only of commercially viable products and services; important but nonsaleable information would be lost. A balanced public-private information system eliminates these undesirable qualities and provides free public libraries, presentation of nonsaleable information and low-cost publications from the public sector, low-cost access to government databases, widespread availability of commercial products and services, and innovative and novel products for particular information needs. Biomedical information and the databases that contain it are for the most part generated by government sources, nonprofit organizations, and industry. Universities, although they generate much biomedical information, do not frequently create databases.

Professor Williams indicated that the users of these biomedical databases are most often in medical and hospital facilities, universities, corporations, government, public libraries, and information brokers. In hospital settings, the intermediary is a librarian; the end user is a physician or researcher; the immediate beneficiary is a patient; and the long-term benefit is the advancement of biomedical knowledge (with a secondary benefit the improvement of the public's health.) In corporations, the searcher is a librarian, the end user a researcher, and the benefits accrue to the company and to society at large by providing jobs. Brokers provide services to a client with a problem to solve, and the benefits accrue to the client and to an orderly society. Universities have two classes of users--students and faculty. The benefit to the student is acquiring an education and, ultimately, obtaining employment; faculty receive problem-solving benefits for their research. The long-term benefits are the improvement of biomedical knowledge and the public's health. In the government setting, the end user is the government researcher, and the benefits are the same as for university faculty. Patrons are the end user in the public library setting, and the benefits are in immediate problem-solving and ultimately in a more informed public.

Biomedical information services are paid for differently in the various settings: In hospitals it is the patient (or society in the case of public hospitals) who ultimately pays; in corporations it is the company itself; in brokerage firms it is the client; in universities it is the student; in government settings it is tax dollars that pay; public libraries charge their patrons unless the service is subsidized by tax dollars. Benefits may be ranked thus: those that benefit society as a whole, those that benefit individuals, and those that improve the economic position of corporations and other groups. Hospitals, universities, and government research provide benefits to society as a whole and therefore a good case can be made for using tax dollars to support biomedical information services in these settings. Economic benefits are most directly apparent in public libraries, brokerage firms, and corporations.

The public and private sectors have different considerations in providing information services. The private sector must look at the market and determine who wants to pay for what service. The public sector must consider what groups need to be served and whether they have the ability to pay. The private sector must consider the near-term needs of the market and will be less likely to look toward long-term needs and benefits. Another reality that must be considered is the size of the market: Corporations and government are large markets, universities and hospitals are medium-sized, and the brokers and public libraries are small markets. Regardless of organizational setting, however, the trend is to having end users pay for information services. Professor Williams concluded that the issues in public-private interaction in providing biomedical information services are extremely complex. What is important is that a balance be struck among the types of providers of services. When industry creates an information product, it is rewarded in the marketplace. When government creates an information product, it should do so only so long as it results in a public or social benefit. The products and services of the NLM unquestionably provide a public good and social benefit and do so effectively and efficiently. It will always be difficult for the Library to balance its responsibilities to its users and to its fellow producers and distributors of information. To relinquish services to the private sector would cut off many legitimate users of biomedical information. On the other hand, excessively low prices would drive out other legitimate database producers. Steering a right course through proper pricing should be an important objective of NLM.

#### IV. DATES FOR FUTURE MEETINGS

The Board will meet next on October 7-8. The dates of January 27-28, 1983, were confirmed for the winter meeting, and May 26-27, 1983, are the tentative dates for the spring meeting.

#### V. REPORT OF THE NLM DIRECTOR

Dr. Cummings noted that a recent study by Battelle indicates that U.S. funding for research and development will increase from \$69.1 billion (1981) to \$77.6 billion (1982). This is a real increase of 3.7 percent. Although biomedical research will share proportionately in this increase, there will apparently be no increase for the support of information services or libraries. The Battelle report projects \$3.7 billion in 1982 for Federal R & D support, of which

25 percent is for Federally conducted R & D, almost fifty percent for industry, and only about 20 percent to the academic community. Support for libraries has declined dramatically over the last few years, said Dr. Cummings. He cited statistics from the University of Pennsylvania library that showed rising costs for books and journals and expenses in general, and declining budgets and staff resulting in fewer acquisitions for the library and lower levels of service. NLM's own position over the last 10 years shows that, while the NIH budget for research increased 220 percent, NLM's budget has increased only 80 percent. Taking inflation into account, this has resulted in a budget of no growth.

In the area of legislation, Dr. Cummings reported on recent hearings in Congress before appropriations and legislative committees. In the Senate, most of the questions in the legislative hearings dealt with the public-private sector issue, and an accommodation was reached that will not require a cost-recovery amendment to be added to our legislation. Hearings in the House were "friendly," and the request to renew the Medical Library Assistance Act was noncontroversial. The only uncertainty is for how long a period the Act will be renewed and the dollar level of the authorization. Later in the meeting, after discussion, the Regents unanimously passed a motion, supporting a five-year renewal of the Medical Library Assistance Act (1983-1987, beginning in 1983 with \$7.5 million) and calling for "such sums as may be necessary for Fiscal Years 1984-87 (see page 12). Dr. Cummings reported that in the appropriation hearings also, most of the questions related to the public-private sector issue.

The Department has given NIH and NLM some relief to the restrictions on hiring new employees. NLM is now able to recruit and hire for positions in the lower grade levels--GS-3 to GS-10. The Director also applauded the recent decision by the new NIH Director, Dr. Wyngaarden, to add \$1 million to the Library's budget for FY 1984. Although Dr. Wyngaarden has been at NIH only a short time, he has visited NLM and reviewed NLM's future budget requirements and program plans. Unfortunately, Public Health Service authorities have challenged Dr. Wyngaarden's decision to enlarge the Library's FY 1984 budget by \$1 million.

Following Dr. Cummings' report, Mr. Kent Smith, NLM Deputy Director, discussed the recently released report on MEDLARS by the General Accounting Office (GAO). A second report by the Office of Technology Assessment is in draft and will be released soon. The draft OTA report, Mr. Smith said, is a balanced presentation of the public-private sector issue as it affects NLM's MEDLARS. The Library had an opportunity to comment on it, and the latest version is much improved over earlier drafts. Mr. Smith described in some detail the GAO study, which was conducted by a team of competent auditors. In general, the report is supportive of NLM practices. It supports the philosophy of NLM recovering the full costs associated with providing access to MEDLARS and indicates that with the increase in fee structure that went into effect last October the Library will be recovering 95 percent of these costs.

The GAO report states that the Library is in conformance with applicable regulations and recommends that NLM establish a higher use fee for non-health-related use of the system (2-3 percent). It suggests a minor revision in the way costs are apportioned to establish the fee structure. NLM will take steps to raise the cost recovery level from 95 to 100 percent, effective October 1, 1982.

Mr. Smith also presented recent figures of the usage of MEDLINE by the two domestic commercial vendors--Bibliographic Retrieval Service and Lockheed DIALOG. A new pricing schedule for those who lease NLM tapes went into effect January 1, 1982, and the use figures to date show that they are providing approximately 40 percent of all MEDLINE service. This would seem to indicate a healthy and competitive environment.

Dr. Mayer asked whether, in the light of the supportive GAO and OTA studies, Congress will be satisfied that NLM is operating in an appropriate manner in providing MEDLARS services. He noted the testimony before Congress of Mr. Robert Willard of the Information Industry Association that was critical of the Library. Dr. Cummings responded that Mr. Willard's statement does not represent the views of the entire information industry; there are some in the industry who strongly disagree with Mr. Willard's statements. Dr. Cummings said that he believes that Congress, having heard the Library's position and the statement of one commercial vendor of MEDLINE, is in a good position to resolve the issue fairly.

Dr. Cummings ended his remarks by noting that there has been considerable reaction by the biomedical community to the attack on NLM. During the last several months there have been published editorials, letters to the editor, and articles on the public-private sector issue, all supportive of NLM. There are several articles soon to be published that NLM staff were invited to contribute. In addition, NLM was informed that there will soon be an editorial in Science on the subject. The Library hopes that those who have been challenging NLM pricing practices will agree to discuss these matters with us so that an accommodation can be reached.

Mrs. Shirley Echelman commended the Library on the "calm and diplomatic" way it has responded to the pressures from the private sector. NLM is serving as the "point" library in this dispute. Threats to its services in the name of "competition" are threats to all research libraries. The Association of Research Libraries is keeping a close watch on these happenings, and its members are supportive of NLM. Dr. Ferguson asked about the high MEDLINE usage of Merck, Sharp & Dohme as reported in Mr. Willard's testimony. Dr. Cummings replied that this large pharmaceutical company has a unique service whereby trained representatives provide MEDLINE search services to physicians in their office. This service, which is directly in support of patient care, accounts for their large use of the system. Other commercial MEDLINE users take advantage of the system to provide improved health services to their own employees. This usage is health-related and thus appropriate for NLM to provide on the same basis as for any other user. In addition, these commercial users are free to choose to access MEDLINE through the two U.S. commercial vendors and through non-U.S. MEDLARS centers. The arguments by the Information Industry Association that the Library is subsidizing U.S. commercial users of MEDLINE are spurious. The data on which these arguments are based assume an \$80-per-hour as the cost of an "identical" service in the private sector. In fact, the two commercial vendors of MEDLINE charge \$26 and \$35 per hour (compared to NLM's \$22 per hour). The American Medical Association, Dr. Cummings added, has been extremely helpful in understanding and supporting NLM's position in regard to providing services to the health-related commercial sector.

## VI. REPORT FROM THE SUBCOMMITTEE ON PRICING OF NLM SERVICES

Professor Williams, Chairman of the Subcommittee, reported to the Board on the Subcommittee's discussion about how NLM online services should be priced. She read the policy proposed by the Subcommittee. After discussion by the Regents

the Board unanimously voted to adopt the policy with several changes (Attachment B).

#### VII. REPORT ON BOARD OF SCIENTIFIC COUNSELORS MEETING

Dr. C. H. William Ruhe, Chairman of the NLM Board of Scientific Counselors, reported on the meeting of that body on April 22-23. The Board reviewed in some detail the progress of two Lister Hill Center projects: Integrated Library System and Distributed Information System and heard brief status reports on the Knowledge Base Research Program, Advanced Terminal System, and the Electronic Data Storage and Retrieval Program. There were also discussions of computer graphics and the search for a new director of the Lister Hill Center. In reviewing the Integrated Library System, the Board was pleased with progress to date and recommended that the LHC concentrate on transferring the ILS to the library community. So far, six or seven libraries have purchased the ILS from the National Technical Information Service. The Regents expressed an interest in seeing demonstrations of the Advanced Terminal System and other LHC projects at their next meeting.

#### VIII. REPORT OF THE NIH DIRECTOR

Dr. James B. Wyngaarden reported that NIH is now actively seeking to fill the large number of high-level vacancies in the Institutes. He commented on the FY 83 and 84 budgets, noting that some of the increases included for NLM had been disallowed at the PHS. NIH is appealing the disallowance of \$1 million additional for the NLM budget. The long-range goal in these days of fiscal constraint is to fund the maximum amount of high-quality research with available funds. Investigator-initiated grants will be protected to the extent possible. Dr. Wyngaarden said he was impressed with the high caliber of NIH staff--not only in the laboratories but in administration.

Dr. Cummings commented on the importance of NLM's Computers-In-Medicine Training and Research Program and asked if there might be other organizations at NIH that could share in funding it. Dr. Wyngaarden is aware of this program and realizes its importance, but because of constrained resources he was not optimistic about another organization being able to help fund it in the near future. He believes that ultimately, however, this would be appropriate.

#### IX. LHC/NMAC PROGRAM DIRECTION

Dr. William G. Cooper, Acting Director of the Lister Hill National Center for Biomedical Communications, reported on the planned reorganization of the Lister Hill Center and National Medical Audiovisual Center. The resulting amalgamation of the two organizations would be known as the Lister Hill National Center for Biomedical Communications and consist of six branches that include all present NMAC and LHC functions. This plan has been reviewed by the Board of Scientific Counselors and the Regents' LHC/NMAC Subcommittee. The plan calls for one Director, two Deputy Directors, and six Branch Chiefs. The Branches are identified in the plan as the Audiovisual Program Development Branch, Training and Consultation Branch, Health Professions Applications Branch, Computer Branch, Information Technology Branch, and the Communications Engineering Branch. Dr. Cooper briefly described the functions of each Branch. The only functions of the present LHC/NMAC not to be included in the new organization is the materials utilization activity--AV loan, rental, sales, and archival programs--which will be a new Audiovisual

Resources Section of Library Operations' Reference Services Division. The search for a new LHC Director, he said, is well under way, and he hopes to identify this summer the person selected. Dr. Molnar suggested that the new LHC's goals and functions be the subject of an extended review and discussion by the Board of Regents. Dr. Cummings agreed with this suggestion and said that such a presentation might be made at the October Board meeting.

#### X. STUDY BY THE ASSOCIATION OF AMERICAN MEDICAL COLLEGES

Dr. William D. Mayer, who was Chairman of the AAMC group that prepared the Study, gave some general background on its origins. The Study, entitled "Academic Information in the Academic Health Sciences Center: Roles for the Library in Information Management," was prompted by the perception that modern communications technology was not being applied as quickly and thoroughly as it could be in biomedical research, health professions education, and patient care. NLM has demonstrated commendable leadership in the computers-in-medicine area, but nevertheless the potential of new technology is not being realized within the health professions. The totality of the information processing needs in academic health-science centers is enormous; the group that conducted the Study thus focussed on one aspect of it--the management of the academic information resources base in biomedicine.

Dr. John A. D. Cooper, President of the Association of American Medical Colleges and the project's director, described the findings and recommendations of the Study. He concurred with Dr. Mayer's comments that the application of computers to medicine has not been incorporated into our basic education program and that the gap is growing between what is possible in the application of technology and what is being achieved. The Study considers the academic medical center as a set of information systems with the library as one of its major information resources. The Study identifies issues that policy makers must take into account in defining institutional information policies. Finally, the report describes an approach to the overall problem of information handling in the academic medical center. Libraries have done a magnificent job, he said, in developing interlibrary communications systems (such as the RML network); they have been less successful in developing information systems within academic medical centers. Such intra-institutional systems are sorely needed. A second major need is for libraries to become involved in developing and implementing knowledge-management programs, such as CADUCEUS and NLM's own Knowledge Base Research Program. The report posits several scenarios of how academic health-science libraries might function in a network environment over the next 10 to 20 years. Libraries should evolve from information-transfer mechanisms to information-management mechanisms and, in so doing, become integrated into the education, research, and patient-care functions of academic health-science centers. Among the report's recommendations were: Libraries should be equipped to function in a technologically sophisticated information environment; they should identify leadership within their institutions to integrate computer-based knowledge management with education, research, and practice; they should introduce the principles of modern information-handling to a broad spectrum of users within their institutions; professional associations should help institutions to link information systems; industry and the private sector should become familiar with the problems of academic medical centers and assist in designing systems for knowledge management; and a national agency, perhaps the National Library of Medicine, should spearhead this entire effort. The AAMC, Dr. Cooper said, plans to give the report widespread distribution as a supplement to the September issue of the Journal of Medical Education.

The Association has a very strong interest in bringing about a coalition of institutions to gather the resources to build prototype academic information systems.

Dr. William Cooper complimented Dr. John A. D. Cooper on the excellent AAMC report. Its recommendations will be an integral part of NLM's five-year plan to move toward some of these common goals. NLM is already engaged in some of the activities called for, such as networking, enhancement of bibliographic services, and new applications of technology and will be interested in the response of the medical education community to the report. Dr. Mayer complimented the principal investigator of the Study, Ms. Nina W. Matheson. Dr. Cummings commented that the report's emphasis on the need for collaboration among private institutions, foundations, corporations, and government agencies is especially welcome and realistic. Also, he applauds its emphasis on using available technology to improve communication within the academic health-science centers. The Uniformed Services University of the Health Sciences, he added, might be a test-bed for a prototype system as recommended by the Study.

#### XI. UPDATE ON MEDLARS III

Mr. John Anderson, NLM Director of Information Systems, described progress to date on the development of an improved MEDLARS system. Eighteen months of work by his staff has produced a comprehensive Request for Proposal (RFP) on which vendors will submit bids to design the overall system and partially implement it. The RFP is awaiting the approval of PHS and the Office of the Secretary before it can be released to potential bidders. The NLM staff has documented all requirements for the new system; the contractor will do the design and implementation. Mr. Anderson showed the Regents sample pages from the detailed technical specifications drawn up by NLM staff. The entire cost of the system over a 7-year lifespan is projected to be \$14 million. Quantifiable benefits to the health-science community, on the other hand, are estimated to be more than \$40 million. NLM hopes this fiscal year to upgrade its present IBM 370/168 computers to more powerful machines. It may be possible to acquire used computers from NIH to accomplish this upgrade. The Board expressed its concurrence with the plans as reported.

#### XII. OVERVIEW OF LIBRARY OPERATIONS

Mrs. Lois Ann Colaianni, NLM Deputy Associate Director for Library Operations, briefed the Regents on the history, development, and present organization of the Library Operations (LO) component of NLM. LO is responsible for acquiring the literature; indexing and cataloging it; preparing publications and other bibliographic tools; providing access to the collection through reference services, document delivery, and onsite readers' services; administering a national online bibliographic retrieval system; managing the Regional Medical Library network; and preserving source materials in the history of medicine. To carry out these functions, LO has four major divisions: Reference Services, Bibliographic Services, Technical Services, and History of Medicine. In addition, there are separate offices for the Regional Medical Library Program, Medical Subject Headings, and the Office of the Associate Director for Library Operations. Mrs. Colaianni described the functions of each of these divisions and offices, presenting workload statistics for the number of services they perform.

Library Operations has a ceiling of 236 full-time permanent positions; there are 30 part-time or temporary employees. Some services are performed under contracts, utilizing the equivalent of about 50 additional staff. Indexing, bindery preparation, offsite check-in of journals, limited cataloging, and keyboarding of citations and abstracts for MEDLARS are some of the functions which are performed by contractors. Summer students, "stay-in-school" students, and overtime are also necessary for LO to accomplish its tasks. For Fiscal Year 1982, Library Operations has a budget of \$15.7 million. Of this, 42% goes for salaries.

Mrs. Colaianni noted that in the coming years Library Operations will face technological changes and economic constraints. Its managers must continually review policies and constantly question "the need to do well what need not be done at all." Effective and cost-saving new methods of managing the collection and providing information services must be LO's constant goal. The most important immediate challenge facing LO, she said, is to continue automating the processing systems to handle the literature and to develop an effective, integrated system from which to provide services to the medical library community. Building links between databases, improving the retrieval system by which other libraries access NLM records, producing management statistics, and automated office systems are a part of this challenge. These are all possible with present technology, and implementing such improvements would free staff for more productive activity. The second major challenge is to develop closer relations with other libraries--including the Library of Congress and National Agricultural Library--and to develop and adhere to common national standards. There are other challenges in improving document delivery, evaluating and testing NLM library activities, and recruiting and training qualified and motivated staff.

Following Mrs. Colaianni's presentation, Dr. Cruzat commended the staff of Library Operations for the high level of services they provide. Medical libraries of all types look to the leadership of Library Operations, and its services--cataloging, information retrieval, and document delivery--have a great impact on the operations of other libraries. She cautioned that as NLM continues to implement new technology it not neglect the important function of preserving the Library's historical materials. Mrs. Shirley Echelman also lauded the high quality of LO programs and emphasized the need to give high priority to improving document-delivery systems. She also underlined the importance of NLM/Library of Congress cooperation and the importance of original cataloging at NLM which saves other medical libraries the time and expense of doing their own.

### XIII. NIH DIRECTOR'S ADVISORY COMMITTEE REPORTS

Dr. Henry Riecken, NLM Acting Associate Director for Planning, discussed two reports issued in October 1981 by the Advisory Committee to the Director, NIH: Costs of Biomedical Research and Cooperative Research Relationships with Industry. The views of the Board of Regents and other NIH advisory councils are being sought on these issues.

The costs of biomedical research, especially indirect costs, have been rising at a rapid rate, Dr. Riecken stated. The necessity to document cost-sharing, to report time and effort, to seek permission to transfer funds, etc., requires additional personnel and time and does not seem to accomplish enough to justify

the cost. NIH is exploring alternative methods of handling accountability and reducing paperwork. One of the alternatives suggested by the Director's Advisory Committee is a "fixed-obligation grant." The grant review procedure would remain the same up to council approval. At that point, NIH and the institution would agree on a fixed amount of money to accomplish the purpose outlined in the proposal; i.e., no retrospective adjustments of indirect costs, no recapture of unspent grant funds, no adjustments of any kind would be allowed and fiscal accountability procedures would be greatly reduced. Accountability would be mainly in terms of scientific accomplishment. The idea of the "fixed-obligation grant" is currently under study at NIH. In the meantime, control of indirect costs in the FY 1983 budget has been addressed by a proposed across-the-board ten percent reduction in this cost category, a move that is naturally unpopular with institutions and has not been received favorably by the House and Senate. There is some sympathy at NIH with the position of the General Accounting Office: "If Congress wishes to limit expenditures, let Congress supply a ceiling for all costs but not single out indirect costs."

Dr. Riecken next reported on the patent-policy issue, noting that Congress revised the patent laws in 1980 and for the research segment essentially adopted the standing NIH policy of Institutional Patent Agreements, applying it to the government's dealings with universities, nonprofit research institutions, and small businesses. Those institutions will have first option to take ownership of inventions that have been made with Government funds. The Government retains the worldwide, royalty-free license to use these inventions at any time. In rewriting the law, commingling of funds became a problem, because the new law retains a phrase referring to Government support "in whole or in part" without qualifying the statement. Strict interpretation of the law would open the possibility that many inventions accomplished to only the slightest extent through federal funds may be considered to confer free license for Government use. The second issue concerns itself with licensing as such. A university patentee can license the invention only to a US firm for development for no more than eight years. Finally, the Government has "march-in" rights when some of its funds have been used; i.e., if the university patents its invention, but does not exploit its development, the Government can order the university to enter into a licensing agreement with the individual or company that wants to develop the invention. The university will receive the royalties.

Commenting on accountability of public funds, Dr. Mayer felt strongly that one has a responsibility to account for those funds received from the Government. Dr. Riecken noted that there is a proposal under discussion of periodic sample audits of individual grants, without making it a regular feature of each grant.

Dr. Molnar shared Dr. Mayer's concern of the need for public accounting, but felt that the intent of the report was not so much to eliminate accountability as to express it in terms of results accomplished. He also pointed out that in many respects there is a great deal of incentive for universities at the present time to control their indirect cost. He felt that the proposed mechanism would generate incentives to reduce the indirect cost by determining the number of dollars up front, and reduce the indirect cost.

#### XIV. REPORT ON RESOURCE GRANTS TO FOR-PROFIT ORGANIZATIONS

Mr. Arthur J. Broering, NLM Acting Associate Director for Extramural Programs, reviewed this issue for the Board's consideration and action. Effective

January 1982, for-profit organizations became eligible to apply for assistance awards under most sections of the Public Health Service Act. The sections of the PHS Act under which profitmaking organizations would be eligible include only those programs where for-profit eligibility is not specifically precluded by statute.

Generally, the Public Law language for programs of the Medical Library Assistance Act specifies that eligibility is limited to public or private non-profit organizations. However, under the Resource Grant Program the statutory language reads as follows:

"Sums made available under this section shall be utilized--for making grants--to public or private nonprofit medical libraries and related scientific communication instrumentalities."

The question was raised by regulation officials whether "scientific communication instrumentalities" must be nonprofit in order to be eligible for these grants. That is, does "nonprofit" in the above passage modify the entity "communication instrumentalities" as well as "medical libraries." The NIH Counsel indicated that, although the primary purpose of the legislation is clearly to assist public and nonprofit medical libraries, the issue of eligibility of for-profit "communication instrumentalities" is one of policy rather than legal determination.

After some discussion the Board concluded that, to be consistent with legislative intent and program purpose, for-profit organizations should not be eligible to apply under the NLM Resource Grants Program.

#### XV. CURRENT AND PROJECTED FUNDING OF NLM GRANTS

Mr. Broering then reviewed the current and projected budget picture for Extramural Programs. He reminded members of Dr. Cummings' comments that the House and Senate have each introduced a bill, calling for the three-year extension of MLAA authorities at levels of \$8.0 million for the first year, \$8.5 million for the second, and \$9.0 million for the third. The Administration Bill proposes a five-year extension, beginning in 1983 with \$7.5 million and leaving unspecified the authorization levels from 1984 through 1987. Dr. Mayer moved that the Board go on record in support of the Administration's position that FY 84-87 authorities for the MLAA programs be "such sums as may be necessary." The motion was passed unanimously.

Mr. Broering continued by summarizing the impact of the FY 1982 budget on grant awards. NLM reduced continuation commitments for current awards by \$250,000, an average decrease of over 6%; the number of new awards in FY 1982 is projected to be less than 40 compared to an annual average of 80 the previous five years; the Training Program's institutional costs were reduced by fifty percent and no multi-year Publication Grant awards were made for the first half of the year. Finally, the Program Projects in the computers-in-medicine area, funded with LHC funds, were reduced by an average of twelve percent. (There are four of these Program Projects representing about \$1.0 million in total annual commitments.)

Within this context then, Mr. Broering reviewed the background of the Training Program in Computers-in-Medicine and questioned whether its continuation beyond current commitments is feasible in light of NLM's inability to provide assurance of long-term support or indeed advisable in consideration of the opportunities

and new challenges which are on the horizon for the assistance programs. The Training Program was started in 1973 with intended support assistance from the Bureau of Health and Manpower. Because of a reorganization within the Department, the agreement was defaulted and, since 1973, NLM has assumed total fiscal responsibility for the support of the program, obligating more than \$12.0 million.

Ten Training Grants are currently active; one of the two terminating this year has reapplied for continuation; two terminate next year; and the remaining six Training Grants have funding commitments through FY 1984. No new Training Grant applications have been received since the moratorium for receipt of new proposals went into effect in 1980. Mr. Broering noted that the Extramural Programs Subcommittee at its meeting on Wednesday was reluctant to recommend abandoning NLM support for the program at this time, since the momentum gained would be lost and since there is no assurance that any other institute at NIH is able or willing to assume some fiscal responsibility. Dr. Mayer and Colonel Scotti, members of the Subcommittee, reiterated a previous Board recommendation that NLM should continue to encourage other appropriate avenues of support but in the interim they believe NLM should not abdicate support of this activity. Dr. Cruzat, also a Subcommittee member, agreed in principle, but believes also that this program should not be allowed to overshadow other research programs and new initiatives under the Medical Library Assistance Act authority.

The sense of the Board on the issue was expressed in the form of a motion, which provides that no action be taken at this time to phase out the Program, but that NLM need not accept new competitive applications. Further, as renewal proposals are received from the current grantees they should be very critically reviewed to assure that only the highest quality programs are continued with the limited funds available.

#### XVI. REPORT ON COMPUTERS-IN-MEDICINE RESEARCH GRANTS PROGRAM

Mr. Peter A. Clepper, EP Program Officer, presented a draft program description for NLM's research grants which the Board's Subcommittee for Extramural Programs had discussed earlier.

Present experience, as well as the recommendations of the Task Force, chaired several years ago by Dr. John Sherman, suggest two program areas: Computers in Medicine, and Health Sciences Librarianship-Information Science. In the first area, NLM shares research interests with other NIH and PHS programs. In the second area, NLM has the only PHS responsibility for research and development. Appropriate research topics for the Computers-in-Medicine Program area include: knowledge representation, attributes of language, computer reasoning, decision making, human factors, and computerized knowledge access in clinical activities. The latter category could also include bioethical studies regarding computerized consultant systems and medical practice. The Health Sciences Librarianship-Information Science area would include: organization and dissemination of literature, computers and libraries, analysis of bibliography, and information needs and uses.

To develop these program areas appropriately, Mr. Clepper presented the following guidelines for the Board's consideration:

- Both program areas support information sciences research in a health context.
- Computers-in-Medicine is concerned with basic and theoretical studies, not clinical trials of patient-care modalities.
- Where new programs or software are developed as a grant byproduct investigators are expected to document the software and make it generally available.
- Both research program areas encourage young investigators.
- NLM's involvement in research grants is as an institution only. Access to NLM documents or data for research purposes must be sought by applicants from appropriate NLM officials, and letters agreeing to supply such material should be made available to reviewers. NLM staff members cannot be named as participants in research grant proposals assigned to NLM.

Dr. Mayer pointed out that, although the program description was generally acceptable, in a time of scarce resources it is important to support activities or studies which are central to the Library's role. The program description should make clear that high priority will be given to research which enhances utilization of the world's store of biomedical knowledge. There should be somewhat less emphasis on studies involving newly created information, such as patient records or data from diagnostic tests. Dr. Molnar noted that this distinction could narrow the program scope, and, if so, the program title should reflect this. Members agreed that in times of limited available resources, it is especially important to direct activities in accord with NLM's overall mission and responsibilities. Dr. Ferguson hoped there would be a close relationship with the recommendations of the AAMC Report, "Academic Information in the Academic Health Sciences Center." He also believed that an important program aim should be to help establish the computer sciences in medical schools.

The Regents assented to Dr. Scotti's suggestion that a reworded statement to convey the sense of the Board's emphasis on recorded knowledge should be prepared for the next meeting. In the meantime, program development efforts could go forward, since the other aims and policies in the program description are acceptable and appropriate.

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 MEETING CLOSED FOR THE REVIEW OF GRANT APPLICATIONS -- 12:30 P.M., MAY 21, 1982  
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XVII. REVIEW OF PENDING APPLICATIONS

Before proceeding with the consideration of pending applications, Mr. Broering informed Board members of confidentiality and conflict-of-interest procedures and reminded them to sign, at the conclusion of the grant application review, the statement that they had not participated in the discussion of any application where conflicts of interest might occur.

The Board concurred with the recommendations of the Extramural Programs Subcommittee. A total of 57 applications was reviewed, of which 31 were recommended for approval, 24 for disapproval, and two for deferral. Grant applications recommended for approval by the Board are listed in the summary actions (Attachment C). Interim actions taken by the Extramural Programs' staff since the October Board meeting were noted. The Board also concurred with the EP Subcommittee on the review of a construction grant application from Tufts University for a medical library/learning resources facility and recommended approval of the proposal to the National Advisory Council on Health Professions Education for the final review on August 2-3, 1982.

XVIII. ADJOURNMENT

The meeting was adjourned at 1:30 p.m., May 21, 1982.

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Wednesday, May 19, 1982, 2:00 to 5:45 p.m.  
(EP Subcommittee--List of Attendees under Attachment D)

Wednesday, May 19, 1982, 1:00 to 4:30 p.m.  
(LHC/NMAC Subcommittee--List of Attendees under Attachment E)

Thursday, May 20, 1982, 9:00 a.m. to 4:30 p.m.  
Friday, May 21, 1982, 9:00 a.m. to 1:30 p.m.

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ACTIONS TAKEN BY THE BOARD OF REGENTS

1. The Board recommended adoption of a policy for pricing of online services (Resolution under Attachment B).
2. The Board unanimously passed a motion, supporting the Administration Bill for a five-year extension of the Medical Library Assistance Act, beginning in 1983 with \$7.5 million and calling for "such sums as may be necessary" for Fiscal Years 1984-87.
3. The Board concurred with the ongoing plans for the development of MEDLARS III.
4. The Board concluded that, to be consistent with legislative intent and program purpose, for-profit organizations should not be eligible to apply under the NLM Resource Grant Program.
5. The Board passed a motion, asking that no action be taken at this time to phase out the Training Grant Program. NLM need not accept, however, new competitive applications. Further, renewal proposals from current grantees should be critically reviewed to assure that only the highest quality programs are continued.

6. The Board concurred with the recommendations of the Extramural Programs Subcommittee. Grant applications recommended for approval are listed in the summary actions (Attachment C).
7. The Board also concurred with the EP Subcommittee on the review of a construction grant application from Tufts University and recommended approval to the National Advisory Council on Health Professions Education.

I hereby certify that, to the best of my knowledge, the foregoing minutes and attachments are accurate and complete.

*Martin M. Cummings* 7/9/82

Martin M. Cummings, M.D. (Date)  
Executive Secretary

*Martha E. Williams* 7/12/82

Martha E. Williams (Date)  
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Board of Regents' Roster (continued)

BOORSTIN, Daniel J., Litt.D.  
Librarian of Congress  
Library of Congress  
10 First Street, S.E.  
Washington, DC 20540 202-287-5205

WELSH, William J.  
Deputy Librarian of Congress  
Library of Congress - Room 110, Jefferson Bg.  
10 First Street, S.E.  
Washington, DC 20540 202-287-5215

CUSTIS, Donald L., M.D. (10)  
Chief Medical Director  
Veterans Administration  
Department of Medicine and Surgery  
1810 Vermont Avenue, N.W.  
Washington, DC 20420 202-389-2596

HAHN, James M. (142)  
Director  
Continuing Education Resources Service  
Veterans Administration  
1810 Vermont Avenue, N.W.  
Washington, DC 20420 202-389-5078

CLARK, Eloise E., Ph.D.  
Assistant Director for Biological,  
Behavioral, and Social Sciences  
National Science Foundation  
1800 G Street, N.W., Room 506  
Washington, DC 20550 202-357-9854

COOP, C. Everett, M.D.  
Surgeon General, PHS, and  
Deputy Assistant Secretary for Health  
200 Independence Avenue, S.W.  
Washington, DC 20201 202-245-6467

ABDELLAH, Faye G., Ed.D., Sc.D.  
Deputy Surgeon General, and  
Chief Nurse Officer, PHS  
Parklawn Building, Room 17B09  
5600 Fishers Lane  
Rockville, MD 20857 301-443-6497

MYERS, Paul W., Lt. Gen., USAF, MC  
Surgeon General  
Department of the Air Force  
Bolling Air Force Base  
Washington, DC 20332 202-767-4343

CHONG, Vernon, Col., USAF, MC  
Commander  
Malcolm Grow Medical Center  
Andrews Air Force Base, MD 20331  
301-981-3001

MITTEMEYER, Bernhard, Lt. Gen., MC, USA  
The Surgeon General  
Department of the Army  
Washington, DC 20310 202-697-1295

SCOTTI, Michael J., Col., MC, USA  
Chief, Graduate Medical Education Branch  
Education and Training Division  
U.S. Army Medical Department  
Personnel Support Agency  
Washington, DC 20314 202-693-5455

EXECUTIVE SECRETARY

CUMMINGS, Martin M., M.D.  
Director  
National Library of Medicine  
Bethesda, MD 20209 301-496-6221

1. Charging Policy

NLM should charge for providing online access to databases on the NLM computer system. The charge should be based on recovering the full cost to NLM for providing access to databases on the NLM computer system and should not include the cost of database generation and maintenance.

2. Cost Elements

Cost elements should include personnel, materials and services associated with the following: telecommunications between the computer system and U.S. user terminals; computer usage; online network management; training of personnel operating online services; preparation and distribution of manuals and training materials; accounting and billing for online services. Cost elements should also include the associated administrative overhead costs such as: printing, postage, travel and indirect costs as reflected in the NIH management fund (covering items such as plant usage and maintenance costs, guard services, engineering services, etc.).

3. Charging Formula

The basis for establishing charges should be the same for all domestic users, independent of geographic location and commercial or non-commercial status. The formula for charging users may include: connect hours, computer resource units, printing, display of information, stored data, telecommunications, manuals, and training materials and activities. In addition use charges and minimums may be charged as appropriate.

4. Disposition of Funds

Excess funds should be returned to the U.S. Treasury in accordance with U.S. government requirements.

5. Establishment, Changes and Review of Policy

Recommendations regarding pricing policy and policy changes should be made by the Board of Regents and submitted to the Secretary. Policies should be reviewed annually by the Board of Regents.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/  
(Arranged numerically by program)

ATTACHMENT C

COUNCIL DATE: MAY 1982

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
2 R01 LM 03525-03	STEROID-PROTEIN INTERACTIONS (MONOGRAPH)	03 17,994
2 R01 LM 03611-03	NATURAL LANGUAGE ACCESS TO MEDICAL TEXT	03 99,677 04 106,182 05 113,209
1 R01 LM 03768-01A1	A CATALOGUE OF THE CLASSICAL ARMENIAN GALENIC CORPUS	01A1 13,074
2 R01 LM 03782-02	THE NATIONAL INSTITUTES OF HEALTH: THE EARLY YEARS	02 20,680
1 R01 LM 03825-01A1	EVALUATION OF A COMPUTER-BASED EDUCATIONAL CONSULTANT	01A1 85,554
1 R01 LM 03918-01	TRANSCRIPTION AND EDITING OF "ADMIRABLE SECRETS"	01 15,122 02 15,695
1 R01 LM 03936-01	PHYSIOLOGY IN THE AMERICAN CONTEXT, 1870-1940	01 12,483 02 36,405 03 15,394
1 R01 LM 03980-01	A DRILL AND PRACTICE PROGRAM FOR ONLINE RETRIEVAL	01 22,050 02 14,307
1 R01 LM 03990-01 DUAL: GM	AID TO FINDING VESSELS & NERVES IN SEVERED HANDS/DIGITS	01 35,570 02 34,240 03 25,036
1 R01 LM 03995-01	PHYSICIANS HANDBOOK ON MEDICAL ETHICS	01 25,222
1 R01 LM 04000-01 DUAL: CA	ONCOLOGIC: A RATIONAL APPROACH TO CANCER TREATMENT	01 32,272 02 33,824

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/  
(Arranged numerically by program)

COUNCIL DATE: MAY 1982

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 R01 LM 04001-01	A HISTORY OF SPEECH PATHOLOGY AND CORRECTION TO 1800	01 28,978
1 R01 LM 04005-01	COMPUTERIZED ENCODING OF DATA IN A MEDICAL RECORD SYSTEM	01 86,118 02 83,801

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/  
(Arranged numerically by program)

COUNCIL DATE: MAY 1982

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 R23 LM 03823-01A1	NATURAL LANGUAGE INTERFACE TO MEDICAL DATA BASE SYSTEMS	01A1 37,497 02 34,333 03 34,381
1 R23 LM 03978-01	A SYSTEM WHICH CRITIQUES AN ANESTHETIC MANAGEMENT PLAN	01 34,984 02 32,738 03 35,912
1 R23 LM 03982-01	IMAGE PROCESSING FOR CLINICAL DECISION MAKING	01 34,688 02 35,661 03 36,731

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/  
(Arranged numerically by program)

COUNCIL DATE: MAY 1982

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 G08 LM 03254-01A2	SAVE AUDIO-VISUAL CONSORTIUM	01A2 56,125 02 30,244
1 G08 LM 04006-01	COOPERATIVE BINDING RESOURCE PROJECT	01 1,409

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/  
(Arranged numerically by program)

COUNCIL DATE: MAY 1982

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER

SHORT TITLE

AMOUNTS  
RECOMMENDED

2 P01 LM 03396-04

04 60,000

STUDIES IN CLINICAL REASONING & INFORMATICS THEORY

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/  
 (Arranged numerically by program)

COUNCIL DATE: MAY 1982

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 G07 LM 03834-01A1	CONSORTIUM IMPROVEMENT GRANT	01A1 24,200
1 G07 LM 03839-01A1	SINGLE-INSTITUTION GRANT	01A1 4,000
1 G07 LM 03971-01	SINGLE-INSTITUTION GRANT	01 4,000
1 G07 LM 03972-01	SINGLE-INSTITUTION GRANT	01 4,000
1 G07 LM 03976-01	CONSORTIUM IMPROVEMENT GRANT	01 16,815
1 G07 LM 03977-01	CONSORTIUM IMPROVEMENT GRANT	01 4,000
1 G07 LM 03989-01	CONSORTIUM IMPROVEMENT GRANT	01 44,800
1 G07 LM 03998-01	SINGLE-INSTITUTION GRANT	01 1,000
1 G07 LM 04003-01	SINGLE-INSTITUTION GRANT	01 24,096
1 G07 LM 04004-01	CONSORTIUM IMPROVEMENT GRANT	01 31,912
1 G07 LM 04009-01	SINGLE-INSTITUTION GRANT	01 4,000

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

BOARD OF REGENTS  
EXTRAMURAL PROGRAMS SUBCOMMITTEE MEETING

May 19, 1982

A T T E N D E E S

Subcommittee Members Present:

Dr. Gwendolyn S. Cruzat  
Dr. William D. Mayer  
Dr. John L. Townsend  
Col. Michael J. Scotti  
Dr. Saul Jarcho (Consultant)

NLM Staff Present:

Dr. Martin M. Cummings, Director, NLM  
Mr. Arthur J. Broering, Acting Associate Director, EP  
Dr. Jeanne L. Brand, Chief, International Programs Branch, EP  
Mr. Peter A. Clepper, Program Officer, EP  
Mrs. Karin K. Colton, Committee Management Assistant  
Dr. Roger W. Dahlen, Chief, Biomedical Information Support Branch, EP  
Mrs. Rose Marie Holston, Program Analyst, Office of Program Planning and  
Evaluation, EP  
Mrs. Frances E. Johnson, Program Officer, EP  
Mrs. M. Kathleen Nichols, Grants Management Specialist, EP  
Mrs. Marguerite L. Pusey, Administrative Officer, EP  
Mr. Randall Worthington, Program Officer, EP

B O A R D O F R E G E N T S

Lister Hill Center and National Medical Audiovisual Center

Subcommittee Meeting

May 19, 1982

A T T E N D E E S

Subcommittee Members Present:

Dr. Faye G. Abdellah  
Dr. Ismael Almodóvar  
Dr. Charles C. Edwards  
Dr. Charles E. Molnar  
Dr. C. H. William Ruhe, Chairman, Board of Scientific  
Counselors, NLM (Consultant)

NLM Staff Present:

Dr. William G. Cooper, Acting Director, LHNCBC and NMAC  
Dr. Donald Buckner, Special Assistant to the Acting Director, NMAC  
Mr. Frederick Buschmeyer, Asst. Chief, Materials Development Branch, NMAC  
Dr. Robert H. Cross, Program Analyst, LHNCBC  
Mr. B. Earl Henderson, Acting Deputy Director, LHNCBC  
Mr. Charles E. Herbert, Asst. Director for Program Planning and  
Coordination, NMAC  
Ms. Linda W. Kudrick, Chief, Materials Utilization Branch, NMAC  
Dr. A. Donald Merritt, Chief, Health Professions Application Branch, LHNCBC  
Dr. Warren F. Seibert, Chief, Educational Research and Evaluation Branch, NMAC  
Dr. George P. Thoma, Acting Chief, Communications Engineering Branch, LHNCBC  
Dr. Michael Weisberg, Asst. Chief, Educational Training and Consultation  
Branch, NMAC  
Dr. James W. Woods, Acting Chief, Materials Development Branch, NMAC

DEPARTMENT OF HEALTH AND HUMAN SERVICES  
NATIONAL INSTITUTES OF HEALTH  
NATIONAL LIBRARY OF MEDICINE  
Bethesda, Maryland

A G E N D A

71st Meeting of the

BOARD OF REGENTS

9:00 a.m., October 7-8, 1982

BOARD ROOM  
National Library of Medicine

MEETING OPEN: All day on October 7 and from 9:00 to 9:30 a.m. and 10:15 a.m.  
to adjournment on October 8.

MEETING CLOSED: From 9:30 to 10:15 a.m. on October 8 for the review of grant applications.

- I. CALL TO ORDER AND INTRODUCTORY REMARKS Dr. William D. Mayer
- II. REPORT BY THE ACTING ASSOCIATE DIRECTOR FOR PROGRAM PLANNING AND EVALUATION, NIH Dr. Michael I. Goldberg
- III. CONSIDERATION OF MAY MINUTES TAB I Dr. William D. Mayer  
(Agenda Book)

IV. DATES OF FUTURE MEETINGS

Winter Meeting: January 27-28, 1983 (Th-F) -- CONFIRMED

Spring Meeting: May 26-27, 1983 (Th-F) -- CONFIRMED

Fall Meeting: October 6-7 (Th-F) OR October 13-14 (Th-F), 1983

PLEASE NOTE: Medical Library Association Annual Meeting  
May 28-June 2, 1983 -- Houston

American Dental Association  
Annual Meeting  
October 1-4, 1983 -- Anaheim

American Society for Information Science  
Annual Meeting  
October 16-20, 1983 -- Dallas

Association of Research Libraries  
Semi-Annual Meeting  
October 17-20, 1983 -- Chapel Hill

COFFEE BREAK

V.	REPORT OF THE DIRECTOR, NLM Discussion	<u>TAB II</u>	Dr. Martin M. Cummings Board Members
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VI.	AAMC REPORT: "ACADEMIC INFORMATION IN THE ACADEMIC HEALTH SCIENCES CENTER" Outline of Implementation Plan Discussion	<u>TAB III</u>	Dr. William D. Mayer Ms. Nina W. Matheson  Board Members
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LUNCHEON CATERED IN CONFERENCE ROOM "B"

VII.	MEETING OF INTERNATIONAL MEDLARS ADVISORY GROUP Discussion	<u>TAB IV</u>	Dr. Mary E. Corning Board Members
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VIII.	REVIEW OF BOARD POLICIES	<u>TAB V</u>	Dr. William D. Mayer Dr. Henry Riecken and Board Members
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COFFEE BREAK

IX.	RML RECONFIGURATION Discussion	<u>TAB VI</u>	Mrs. Lois Ann Colaianni Dr. Faye G. Abdellah, Discussant  Board Members
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X.	PRESENTATION OF AWARDS A. Regents' Award for Scholarship or Technical Development B. Director's Award		Dr. William D. Mayer  Dr. Martin M. Cummings
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R E C E S S

\* \* \* \* \*

DINNER . . . . . Bethesda Naval Officers' Club  
 Cocktails (Cash Bar) . . . . . 6:30 p.m. "Bridge Room"  
 Dinner . . . . . 7:30 p.m. " "

Speaker: Mr. Warren J. Haas  
 President, The Council on Library Resources

Topic: "The Council on Library Resources, Private Foundations,  
 and the Future of Research Libraries"

R E C O N V E N E: Friday, October 8, 1982, 9:00 a.m., BOARD ROOM

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XI. REPORT OF THE DEPUTY ASSOCIATE DIRECTOR FOR EXTRAMURAL PROGRAMS  Discussion	<u>TAB VII</u>	Mr. Arthur J. Broering EP Subcommittee, Discussants  Board Members
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MEETING CLOSED FOR THE REVIEW OF GRANT APPLICATIONS, OCTOBER 8, 9:30-10:15 A.M.

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XII. SPECIAL APPLICATIONS		
	(Gray Book)	
A. Training B. Research C. Resource D. Publication	<u>TAB I</u> <u>TAB II</u> <u>TAB III</u> <u>TAB IV</u>	Dr. Roger W. Dahlen " " " " " " " " Mr. Randall Worthington

XIII. SUMMARY STATEMENTS		
A. Publication B. Training C. New Investigator D. Career Development E. Research F. Resource 1. Improvement	<u>TAB V</u> <u>TAB VI</u> <u>TAB VII</u> <u>TAB VIII</u> <u>TAB IX</u> <u>TAB X</u>	Mr. Randall Worthington Dr. Roger W. Dahlen " " " " " " " " " " " " " " " "

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COFFEE BREAK

- XIV. REVIEW OF COMPUTERS-IN-MEDICINE PROGRAM TAB VIII
- A. Overview
  - B. Research Training Grant Program
  - C. Research Project Grants
  - D. Proposed Program Revisions
- Discussion
- Dr. Harold M. Schoolman  
Mr. Arthur J. Broering  
Mr. Peter A. Clepper  
Dr. Harold M. Schoolman
- Dr. Richard Friedman,  
Dr. Charles E. Molnar,  
and Board Members
- XV. DEMONSTRATIONS OF INFORMATION TRANSFER TAB IX  
R&D PROGRAMS: Current R&D programs in  
information transfer for library subject  
databases and educational usage will be  
demonstrated.
- Discussion
- Dr. William G. Cooper  
(Lister Hill Center  
Auditorium)
- Board Members
- XVI. ADJOURNMENT 1:15 Dr. William D. Mayer

D E P A R T M E N T   O F   H E A L T H   A N D   H U M A N   S E R V I C E S

NATIONAL INSTITUTES OF HEALTH

NATIONAL LIBRARY OF MEDICINE

BOARD OF REGENTS

MINUTES OF THE 71<sup>ST</sup> MEETING

OCTOBER 7-8, 1982

BOARD ROOM  
NATIONAL LIBRARY OF MEDICINE  
BETHESDA, MARYLAND

DEPARTMENT OF HEALTH AND HUMAN SERVICES  
PUBLIC HEALTH SERVICE

THE BOARD OF REGENTS OF THE NATIONAL LIBRARY OF MEDICINE

Minutes of Meeting 1/ 2/  
October 7-8, 1982

The Board of Regents of the National Library of Medicine was convened for its seventy-first meeting at 9:00 a.m. on Thursday, October 7, 1982, in the Board Room of the National Library of Medicine, Bethesda, Maryland. Dr. William D. Mayer, Chairman of the Board of Regents, and President of the Eastern Virginia Medical Authority, presided. In accordance with P.L. 92-463 and the Determination of the Director, NIH, and as announced in the Federal Register on September 3, 1982, the meeting was open to the public from 9:00 a.m. to 4:45 p.m. on October 7 and from 9:00 to 9:20 a.m. and 10:00 a.m. to 1:10 p.m. on October 8. The meeting was closed from 9:20 to 10:00 a.m. on October 8 for the review, discussion, and evaluation of grant applications. A Board roster is enclosed under Attachment "A."

Board members present were:

Dr. L. Thompson Bowles  
Dr. Gwendolyn S. Cruzat  
Dr. Lois E. DeBakey  
Mrs. Shirley Echelman  
Dr. Charles C. Edwards (October 7)  
Dr. Edward J. Huth  
Dr. C. Everett Koop (October 7)  
Dr. William D. Mayer  
Dr. David O. Moline  
Dr. Charles E. Molnar  
Dr. John L. Townsend

Alternates to Board members present were:

Dr. Faye G. Abdellah, representing Dr. C. Everett Koop  
Brig. General Vernon Chong, representing Lt. General Max B. Bralliar  
Colonel James E. Hastings, representing Lt. General Bernhard Mittemeyer  
Mr. William J. Welsh, representing Dr. Daniel J. Boorstin (October 7)

Unable to attend:

Dr. Eloise E. Clark  
Vice Admiral J. William Cox  
Mr. James M. Hahn

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<sup>1/</sup> For the record, it is noted that members absent themselves from the meeting when the Board is discussing applications from their respective institutions (interpreted to mean the entire system of which a member's institution is a part) or in which a conflict of interest might occur. Only when an application is under individual discussion will the Board member absent himself. This procedure does not apply to "en bloc" actions.

<sup>2/</sup> The Board of Regents, when considering the extramural programs of NLM, also constitutes and serves as the National Medical Library Assistance Advisory Board.

National Library of Medicine staff members attending this meeting included:

Dr. Martin M. Cummings, Director  
Mr. Kent A. Smith, Deputy Director  
Dr. Harold M. Schoolman, Deputy Director for Research and Education, OD  
Mr. John Anderson, Director, Information Systems, OD  
Mr. Harry D. Bennett, Director for Computer and Communications Systems, OCCS  
Mr. Albert Berkowitz, Chief, Reference Services Division, LO  
Dr. John B. Blake, Chief, History of Medicine Division, LO  
Dr. Charles Bridgman, Acting Chief, Materials Development Branch, NMAC  
Mr. Arthur J. Broering, Deputy Associate Director for Extramural Programs  
Mr. Kenneth Carney, Executive Officer, OD  
Mrs. Lois Ann Colaianni, Acting Associate Director for Library Operations, LO  
Dr. William G. Cooper, Associate Director for Planning and Acting Associate  
Director for Extramural Programs  
Dr. Mary E. Corning, Assistant Director, International Programs, OD  
Dr. Roger W. Dahlen, Chief, Biomedical Information Support Branch, EP  
Dr. Tamas Doszkocs, Chief, Biomedical Files Implementation Branch, SIS  
Mr. Charles Goldstein, Chief, Computer Technology Branch, LHNCBC  
Mr. B. Earl Henderson, Acting Director, LHNCBC/NMAC  
Dr. Henry M. Kissman, Associate Director for Specialized Information Services  
Mr. Sheldon Kotzin, Chief, Bibliographic Services Division, LO  
Ms. Nina W. Matheson, Special Expert Consultant, OD  
Mr. Robert B. Mehnert, Chief, Office of Inquiries and Publications Management  
Dr. A. Donald Merritt, Chief, Health Professions Applications Branch, LHNCBC  
Mr. Stanley J. Phillips, Deputy Executive Officer, OD  
Dr. Henry W. Riecken, Senior Program Advisor, OD  
Dr. James Woods, Acting Chief, Educational Training and Consultation Branch, LHNCBC

Others present included:

Dr. Nicholas E. Davies, Attending Physician, Piedmont Hospital, Atlanta --  
Consultant, NLM  
Dr. Richard A. Farley, Director, National Agricultural Library  
Dr. Richard B. Friedman, Permanent Head, Section in General Medicine, University  
of Wisconsin Medical School  
Dr. Michael I. Goldberg, Acting Associate Director for Program Planning and  
Evaluation, and Director for Legislative Analysis, NIH  
Dr. Doris H. Merritt, Special Assistant to the Director, NIH  
Dr. Eleanor Smith, Executive Secretary, Special Study Section, DRG, NIH

Members of the public present:

Mr. Thaddeus Plante, Legal Assistant, Kaye, Scholar, Fierman, Hays & Handler  
Mr. Jeff Christy, Reporter, "The Blue Sheet"  
Ms. Marian Williams, Marketing Analyst, Anrow Sciences

## I. OPENING REMARKS

Dr. William D. Mayer, Chairman, welcomed the Regents, consultants, and guests to the 71st meeting of the Board of Regents. He noted especially the presence of four new Regents: Dr. L. Thompson Bowles, Dr. Lois E. DeBakey, Dr. David O. Moline, and Col. James E. Hastings (ex officio for the Army Surgeon General).

## II. REPORT OF THE NIH DIRECTOR

Dr. Michael Goldberg, NIH Acting Associate Director for Program Planning and Evaluation, represented Dr. Wyngaarden and briefed the Regents on current major legislation affecting the NIH. He recounted the nature of NIH's present statutory authorities, contained in the Public Health Service Act, especially in Titles III and IV. Section 301 of Title III is the basic authority for the conduct and support of all health-related research within the Department. The provisions that affect the direct operations of NLM (including the Medical Library Assistance Act) are also in Title III (Sections 381 to 397). NLM is the only major component of NIH whose authorities are in Title III; the others are in Title IV. There are no dollar or time limitations on the Secretary's authority in Section 301 to conduct research. One of the exceptions is the Medical Library Assistance Act (MLAA), which has a dollar ceiling and time limitation. The MLAA authorities expired on September 30, 1982.

Dr. Goldberg described the present efforts to renew the MLAA authority. The Department submitted a bill early this year to renew the authorities for five years; with \$7.5 million for FY 1983 and such sums as may be necessary for the succeeding four years; no substantive changes in authorities were requested. Concurrent bills were introduced into the House of Representatives and the Senate by the appropriate Committees. The Senate bill (Senator Hatch) would have renewed the MLAA for three years, at levels of \$8, \$8.5, and \$9 million for FYs 1983-85. The House bill (Congressman Waxman) would also renew the MLAA for three years, and at the same levels as the Senate bill, but it proposes a major reorganization of NIH authorities and the addition of new responsibilities. These proposed changes are of concern to NIH and the Department.

## III. CONSIDERATION OF MINUTES OF PREVIOUS MEETING

The Regents approved without change the minutes of the May 20-21, 1982, meeting.

## IV. DATES FOR FUTURE MEETINGS

The Board will meet next on January 27-28, 1983. The dates of May 26-27 were confirmed for the spring meeting. There was a problem in setting the date for next fall's meeting; NLM staff will poll the members again and offer September 22-23 and September 29-30, 1983, as possibilities. (The poll established October 13-14, 1983, as the fall meeting dates.)

## V. REPORT OF THE NLM DIRECTOR

Dr. Cummings introduced two new staff members--Dr. Richard Friedman, Director-designate of the Lister Hill National Center for Biomedical Communications, and Mr. Dennis Black, NLM Contracts Officer. He also announced that Dr. William Cooper has been designated Associate Director for Extramural Programs and Mr. Earl Henderson is Acting Director of the Lister Hill National Center for Biomedical Communications. Dr. Cummings noted with regret the death of Scott Adams, former NLM Deputy Director (see Attachment B ).

Dr. Cummings summarized the budget situation: FY 1982 proposed President's budget, \$47.67 million; FY 1982 actual appropriation under the Continuing Resolution, \$45.0 million; FY 1983 proposed President's budget, \$46.0 million. NLM is operating through December 17 under a Continuing Resolution at the comparable FY 1982 spending level. In the area of staffing, the total of "full-time equivalents" for 1982 is 529, with a projection of 560 for 1983. Dr. Cummings showed charts indicating the distribution of personnel and financial resources among NLM programs. Current constraints on hiring allow us to appoint staff up to GS-10; GS-11 and above appointments require a lengthy approval process through NIH and the Department.

The Director reported on the prospects for renewal of the Medical Library Assistance Act. The House report dealing with the renewal was very supportive of the Act. The report also endorsed the present NLM MEDLARS cost-sharing arrangement as described in the General Accounting Office's recent study. The Senate report was also supportive of the Act and gave special emphasis to the need for NLM to facilitate training for specialists to incorporate new technologies in biomedical communications. On the basis of these reports, Dr. Cummings is optimistic that a way will be found to continue the programs under the Medical Library Assistance Act. Unfortunately, these programs may need to be defended before the appropriate Congressional committees next year. Although onerous, this requirement does give NLM the opportunity to further inform the committees about the importance of the programs with the hope that some of the funding limitations may be raised.

The Director briefly discussed several other items:

- o The new AMA/GTE information network is an important development. This is a forward-looking effort to assist U.S. physicians to have access to a variety of medical information. NLM's databases are available to the AMA to incorporate into their system under NLM's normal lease arrangements.
- o The Paperwork Reduction Act, although well-intentioned, may have a damaging effect on libraries by reducing the availability of important Government documents.
- o The request for zero funding for the National Commission on Libraries and Information Science means that library affairs will not have a high priority within OMB.
- o The movement for full-cost recovery on Government publications may mean that society will have less access to information about the Government. For example, the price of the Federal Register has been raised from \$75 to \$300, and, as a result, subscriptions have decreased about 20 percent.

o An important new trend in national information affairs is the effect of the constraint being placed on the free flow of technological information in the interest of national security. The difficulty is in determining where to draw the line. NLM is concerned about the related matter of the transfer of scientific information contained on magnetic tapes. A new Department of Commerce policy seems to be concerned not with the distribution of the information per se but with the quality or technology represented by the U.S. magnetic tape.

Following Dr. Cummings' remarks, Mr. Kent Smith, NLM Deputy Director, reported on several issues. NLM has acquired two IBM 3033 computers considerably under their market value, and the installation went smoothly. These should meet the Library's data processing needs through the mid 1980s, and they will be an important part of the MEDLARS III development. The MEDLARS III request for proposal has been advertised in the Commerce Business Daily and proposals will be received in late November. Related to this is the requirement under OMB A-76 that NLM solicit bids to operate its computer facility. If the cost comparison between a contractor's bid and NLM's current in-house costs shows a saving of at least 10 percent, the activity must be contracted out. Because of a protest by one of the potential bidders, the receipt of the bids has been delayed.

Mr. Smith next described several recent studies of NLM's operations vis-à-vis the public/private issue. They have been reported previously to the Regents. The GAO report (discussed at the last meeting) was generally supportive of NLM's MEDLARS operations and pricing policies. The Office of Technology Assessment (OTA) report, also discussed earlier, will be issued shortly. It also is supportive of NLM's policies and practices. The Department of Health and Human Services is planning a study of HHS clearinghouses and information activities under the Paperwork Reduction Act. This study should draw on the findings of the GAO and OTA reports. Dr. Schoolman will coordinate NLM's participation in these studies. Mr. Smith also discussed the Secretary's response to the Regents' policy recommendation on pricing NLM online services, adopted at the May 1982 meeting. The Secretary will not act on the recommendation until the Department's studies are completed. The last study Mr. Smith commented on is one being conducted by the President's Private-Sector Survey Team, and a related task force on cost-recovery policies. NLM staff met recently with representatives of both groups, but the outcome of their deliberations is not yet known.

Dr. Henry Riecken reported on a PHS Task Force--cochaired by the Director of the National Center for Health Statistics and the NLM Director--set up to examine the role of PHS agencies in collecting, analyzing, and distributing health data. Dr. Riecken and Dr. Bernstein participated in this study for NLM. The report has been completed and is available. Among its conclusions: there is a wide range of fees charged by the 17 PHS clearinghouses, National Center for Health Statistics, and NLM; there is a trend toward user charges, but no agency is recovering the cost of primary data collection; there is a need for more coordination and standardization of charges for products; there was no consensus on a national division of responsibilities between the public and private sectors.

In closing, Dr. Cummings noted that a published NLM annual report will not be forthcoming for the last fiscal year. The Library's request to publish it has been denied by higher authority under the Paperwork Reduction Act. A surrogate, for use by NLM staff and the Regents, will be produced inhouse and made available soon.

The PHS Surgeon General commented that U.S. hospitals are one of the targets for deregulation in the Federal Government. One of the notices for proposed rulemaking is to delete the requirement that hospitals have a library to be eligible for Medicare/Medicaid reimbursement. Dr. Koop said this has important implications for information transfer in the area of health-care delivery. This announcement generated considerable comment by the Regents. Dr. Huth said that the Annals of Internal Medicine will be publishing a variety of views on this proposal. Dr. Townsend characterized the proposal as "ridiculous, it is extremely important to have these information services available to house officers at hospitals," he said. Dr. Cruzat commented that after having spent so much effort and grant money on strengthening these library resources, the proposal is a step backward. Mr. Smith noted that the notice of proposed rulemaking will be published in the next two months and will invite comments from the community. Dr. Cummings commented that the average expenditure for a community hospital library is a small amount--about \$4,000 per year. It is difficult to see how this amount could be spent to better advantage than for the 50 books and 50 journal subscriptions it usually covers. This is a loss not just to the medical professional and, ultimately, the patient, but also to the publishing and information industry that provides information services to hospitals. Dr. Edwards said: "It comes down basically to economics--there are tremendous pressures from all sides to contain costs. Institutions, large and small, are faced with tough decisions, and even some of the things they think important are going to have to be cut." The Board Chairman agreed to have the proposed regulations, when issued, sent to the Board members.

#### VI. AAMC REPORT "ACADEMIC INFORMATION IN THE ACADEMIC HEALTH SCIENCES CENTER"

Dr. William D. Mayer introduced the subject of this new report, issued by the Association of American Medical Colleges under a contract from NLM. The report was discussed in some detail by Dr. Mayer and Dr. John A. D. Cooper at the last Regents meeting. Dr. Mayer was the chairman of the study's advisory committee. The report which addresses the application of new technology to improving bio-medical communications in the environment of the academic health center will be published as a supplement to the October Journal of Medical Education. The report was discussed at the June 1982 meeting of the Medical Library Association, and it was well received there.

Ms. Nina Matheson, who was principal investigator on the study, described the plans to implement the report's recommendations. The report ultimately envisions a linkage of functional information systems within the academic health science center to build an interconnected network of information files, so that an individual will have timely access to quality information to solve a problem. The report looks forward to the evolution of libraries from isolated resources to a system linked to other information sources in the medical center. To do this, libraries must be fully automated and be able to apply data base management principles to organize, package, and deliver information within the medical center. The report addresses its recommendations to three major groups: the academic medical centers, professional associations, and public and private agencies. The report recommends that the AAMC play a lead role in organizing a coalition of these groups to marshal the resources necessary to develop prototype academic health information networks and to adapt new technology to these networks. It also recommends that NLM be the lead agency in supporting these efforts and that, specifically NLM (1) disseminate information about the concepts embodied in the report and (2) assist in the development of prototype systems. The resources

NLM provides should serve as a challenge to others to collaborate in the venture. Some \$150,000 of NLM's extramural funds have been reprogrammed to support direct costs for planning the prototypes. In addition, these funds will be used as leverage by the AAMC to approach other private funding agencies to secure additional resources.

#### VII. SUBCOMMITTEES OF THE BOARD

The Chairman made the following subcommittee assignments:

1. Subcommittee on Pricing: Mrs. Echelman (chair), Dr. Huth, Dr. Molnar, Dr. Clark. The Subcommittee will make its recommendations at the May 1983 meeting.
2. Subcommittee on Extramural Programs: Gen. Chong, Dr. Cruzat, Dr. Townsend, Dr. Bowles, Dr. DeBakey, and Dr. Davies (consultant).
3. Subcommittee on the Lister Hill Center and the National Medical Audiovisual Center: Dr. Edwards (chair), Dr. Abdellah, Dr. Huth, Dr. Molnar, Dr. Moline, and Adm. Cox.

#### VIII. MEETING OF INTERNATIONAL MEDLARS ADVISORY GROUP

Dr. Mary E. Corning, NLM Assistant Director for International Programs, described the origins and development of NLM's bilateral quid pro quo arrangements for international MEDLARS access. In September the International MEDLARS Policy Advisory Group met in Stockholm. The agenda included a report from each foreign center about its recent developments, plans for the future, the quid pro quo arrangements, the role of government in providing biomedical information, the impact of technology, and the relationship between developed and developing countries. The centers have had a very active role in training, and they reported on progress in this area. The problems of developing countries were also thoroughly discussed, including the lack of information resources and the scarcity of trained professional staff. Several issues that were discussed, but not resolved, were (1) the relative roles of national, regional, and international bodies, (2) the integrity of databases, including the possibility of downloading the databases so that subsets may be used for local purposes, (3) the impact of new technology on document delivery and copyright issues, and (4) the public/private issue. These items will be topics of future discussions. The new MEDLARS fee structure, endorsed by the Regents in October 1981 and implemented in January 1982, has been accepted by all non-U.S. centers, and no changes are recommended at this time.

The proper role of government in providing biomedical information was thoroughly discussed by the participants. Dr. Corning noted several of the points made by the National Library of Australia's Director-General: (1) NLM's products and services are basic working tools for libraries, not luxuries, (2) MEDLARS has resulted in a quantum jump in the amount and quality of information available to health professionals, (3) no other government program of this size has had such a beneficial impact, and (4) anything that would prevent NLM's continued leadership in biomedical information transfer would be inimical to the world health community. The group prepared a formal statement expanding on these points and asked that it be transmitted to the NIH Director and the HHS Secretary. (Attachment C)

Following Dr. Corning's presentation, the Regents voted unanimously to reaffirm the MEDLARS policies adopted in October 1981.

## IX . REVIEW OF BOARD POLICIES

The Chairman and Dr. Riecken discussed with the Regents the proposed update changes to all existing Board of Regents policies. The Regents reviewed each policy and its proposed modifications, making changes where needed, at the end of which the Board voted to accept the entire package of policies, as amended. Final review will take place at the January meeting.

## X. RML RECONFIGURATION

Mrs. Lois Ann Colaianni, NLM Acting Associate Director for Library Operations, described progress to date on reconfiguring the Regional Medical Libraries. Last October the Regents approved a reconfiguration of the RML network from 11 to 7 regions. Since that time, NLM staff have been involved in arranging new contracts for the seven regions. Awards to two incumbent RMLs, the Pacific Northwest (University of Washington, Region 6) and Pacific Southwest (UCLA, Region 7), were made recently. Recommendations for the remaining five regions will be made shortly. All awards will be made by January 1983. The contracts will cover fiscal years 1983 to 1985.

The proposals underwent a rigorous and lengthy review. There were two technical evaluation groups composed of practicing health professionals, librarians with knowledge of the RML program, and NLM staff. In June 1982, questions related to the technical aspects of the proposals and to business matters were referred back to the offerors. It was apparent that there would be insufficient money if the regions were funded at the amounts requested. A total of \$2.5 million is expected to be available in FY 1983 for RML funding. Guidelines were then issued to the offerors to assist them in revising their proposals. Old contracts will be phased out beginning September 25, 1982, and new ones phased in over the next several months. Current status: Regions 6 and 7, awarded; Region 5, recommendation made, award about October 22; Region 1, recommendation about October 19, award in early November; remaining regions to be implemented January 1, 1983. There are three areas in which the offerors were invited to submit optional proposals: online training, instructional packages for training nonprofessional health librarians, and the innovative use of technology for biomedical information transfer. There will be keen competition for funding these.

Mrs. Colaianni outlined several important features of the RML Program in the next three years: accurate methods for evaluating the RML services; network standardization (for example, for costs); equitable access in all areas to basic document delivery, bibliographic, and reference services; and cost sharing at the local and regional levels. The challenge for the near future is to make the reconfigured network live up to its potential for improving biomedical information services for health professionals throughout the country.

Dr. Abdellah, drawing on her experience with previous mergers of the Department's regions, described NLM's accomplishments to date as "miraculous." She emphasized the great value of the RML program, especially to small hospitals, and she said that the plans for evaluation, standardization, equitable access, and cost sharing were particularly important.

## XI. AWARDS

1. The Chairman of the Board of Regents presented the 1982 Regents Award for Scholarship or Technical Achievement to John B. Blake, Ph.D. Dr. Blake, Chief, of the Library's History of Medicine Division since 1961, will retire at the end of this month. Dr. Mayer cited Dr. Blake's scholarly work in developing NLM's resources for historical scholarship in medical and related sciences into one of the richest of any nation in the world.

2. Dr. Cummings presented the 1982 Director's Award to Wyndham Miles, Ph.D. He cited Dr. Miles for his recent book, A History of the National Library of Medicine, the first comprehensive history of NLM. Dr. Cummings described the book as a "landmark" and a remarkable achievement of scholarship.

## XII. REPORT OF THE DEPUTY ASSOCIATE DIRECTOR FOR EXTRAMURAL PROGRAMS

Mr. Arthur J. Broering reported briefly on the status of grant awards for FY 1982. During the year 101 awards were made, amounting to \$5.1 million; 61 were noncompeting, for a total of \$3.8 million, and 40 were new competing awards, totaling \$1.3 million. Over a five-year period from 1976-1980, new competing awards per year averaged 80, compared to 66 in 1981 and 40 in 1982. The priority cutoff for competing grant applications was 170 in FY 1982 and 184 in FY 1981.

Mr. Broering then invited the Board's guidance on an issue, discussed at the May Board meeting, when the Board advised that "for-profit organizations should not be eligible to apply under the NLM Resource Grants Program." As a result of a recent HHS General Counsel ruling, however, NLM's Resource Grants Program will be included in the about-to-be-published new regulations on grants eligibility for profitmaking organizations. NLM has the opportunity to appeal this decision, but believes that an appeal solely on the grounds of reduced available funding would not be accepted by the Department.

Dr. Cummings pointed out that there are opportunities for further development of biomedical communications in the private sector that could only be carried out there. Private organizations are resources which sometimes have unique facilities and staff, and it is possible that by being eligible for the NLM Resource Grants, they could make special contributions to biomedical communications. The Director said he is able to separate the current attack on NLM by one part of the information industry from the potential for creative, wholesome partnerships with another part of the industry. Allowing such grants may positively affect the attitudes of the private community at large. The private sector has always received from NLM funding for research, systems development, and biomedical communications services. Within the last decade, NLM has spent more than \$100 million within the private sector. The Director suggested that NLM accept the HHS ruling that the Library make its Resource Grants available to profitmaking organizations. The Regents agreed, and an appeal will not be made to the Department.

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MEETING CLOSED FOR THE REVIEW OF GRANT APPLICATIONS -- 9:20 TO 10:00 A.M., OCTOBER 8  
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### XIII. REVIEW OF PENDING APPLICATIONS

Before proceeding with the consideration of pending applications, Dr. Roger W. Dahlen, Chief of the Biomedical Information Support Branch, EP, informed Board members and consultants of confidentiality and conflict-of-interest procedures and reminded them to sign, at the conclusion of the grant application review, the statement that they had not participated in the discussion of any application where conflicts of interest might occur.

The Board concurred with the recommendations of the Extramural Programs Subcommittee. A total of 44 applications was reviewed, of which 20 were recommended for approval, 21 for disapproval, and three for deferral. Grant applications recommended for approval by the Board are listed in the summary actions (Attachment D). Interim actions taken by the Extramural Programs' staff since the May Board meeting were noted.

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THE MEETING WAS REOPENED AT 10:00 A.M. AND REMAINED OPEN TO ADJOURNMENT AT 1:10 P.M.  
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### XIV. REVIEW OF COMPUTERS-IN-MEDICINE PROGRAM

#### Overview

Dr. Harold M. Schoolman, NLM Deputy Director for Research and Education, summarized the Board deliberations of an extensive review of the entire Training Grant Program at meetings in October 1980, January 1981, and May 1981. The first meeting was devoted to recreating the thinking in 1971 of the Stead Committee and the Board of Regents. The Board and the Committee at the time recognized the ever-increasing importance of computational methods in medicine and the need to stimulate an environment where research in this activity could flourish. Therefore, the training programs that were initiated emphasized the importance of research in the field of computers in medicine by contributing to the environment in the institutions and promoting greater interaction between the health scientist and the computer scientist. At the second meeting, in January 1981, what had happened to the trainees after they had completed the program was reviewed, showing that a significant proportion of the trainees had remained close to the field in academic pursuits. Since the establishment of two other NLM programs--the New Investigator Research Grants and the Research Career Development Awards--it has become evident that many applicants for these awards are former Training Grant Program graduates. Because of this trend, some encouraging continuity has been developed. At the third meeting, in May 1981, the Board looked at the environment as it exists today and found that in some respects dramatic changes had occurred. Today there is an awareness in medical journals and meetings of professional societies, where the issue is being addressed through workshops, symposia, and papers on decision analysis, computer applications in medicine, and computer literacy in medical education. Unfortunately, institutions have not kept up with this trend by establishing departments that would favor research in the field of medical computing. Ten years ago there was no department of medical computing in the United States, and there still is none. There have been, however, within a number of medical schools, divisions devoted to information processing and medical computing, and a medical computing institute is about to be created at Washington University. The environment is therefore clearly more favorable with regard to the recognition of the importance of the endeavor by the medical community as a whole. With regard to opportunities in support of research and career development in the field, except for the programs of NLM, there are none.

NLM now finds itself in the position, where although the medical community has recognized the importance of these activities, the Library has been unable to acquire reasonable support for their continuation and is actually losing ground.

### Research Training Grant Program

Mr. Arthur J. Broering, Deputy Associate Director for Extramural Programs, summarized last May's Board recommendations regarding this program:

1. The program should not be phased out.
2. Only the best of the currently active grants should be selected for renewal.
3. NLM should retain the moratorium on acceptance of new proposals. (Since the assessment two years ago, as discussed by Dr. Schoolman, NLM has not accepted new applications for Training Grant awards.)

The FY 1983 and FY 1984 commitments for current awardees total \$583,000 and \$446,000, respectively. All will have terminated by August of 1985. However, two will terminate on June 30, 1983. If applications for these two programs are approved, their funds will be extended for one additional year. In addition, staff believes that restrictions on the acceptance of new applications should not be made; however, program announcements must provide a realistic appraisal of the likely competition and the limited availability of funds. The proposed common review date would be January 1984, which would afford past awardees and new applicants an equal opportunity to apply.

### Research Project Grants

Mr. Peter A. Clepper, Program Officer, EP, referred to the NLM Research Grants Program Description included in the agenda book, which was discussed during the course of the last year with the Extramural Programs Subcommittee and the Board. The current version reflects the Board's comments, as well as editorial comments by the Biomedical Library Review Committee. Two program areas are identified in the description: "Computers in Medicine" and "Health Sciences Librarianship-Information Science."

Mr. Clepper then concentrated his remarks on a status report of the program project awards which inaugurated the Computers-in-Medicine Program on this large scale in 1979. The awards are for a five-year project period. These grants were made possible by Lister Hill Center funds at the rate of \$1.0 million annually for a total five-year commitment through 1984. The basis for this program evolved out of recommendations made by a taskforce, chaired by Dr. John Sherman, in 1978, urging NLM to undertake a number of major studies in computer-based medicine.

The four institutions involved are MIT, Duke University, Brigham and Women's Hospital, and Stanford University. The projects deal with research in artificial intelligence and clinical problem-solving, medical databases and clinical investigation, biomedical knowledge representation, and investigations in clinical decision-making. Since January 1981, as a group, the grantees have published 28 refereed articles, have written 14 invited book chapters and two books, have made approximately 30 presentations at national and international scientific meetings, and have issued a number of technical reports. The research personnel involved in this work between 1979 and 1982 numbered 16 physicians, 20 computer- and related scientists, and seven research associates, who are Ph.D. candidates.

## Proposed Program Revisions

Dr. Schoolman summarized the foregoing presentations by addressing the following options on what can be done: First, the program description objectives for NLM's Research Training Program should be rewritten. Second, it is NLM's hope that the support of the entire program activity can be broadened. An NIH-wide undertaking with contributions from the categorical institutes, and allowing for their own interests and needs, could be centrally administered to effect a reasonable balance between the support of the basic endeavors and the support of the applications that may be demanded.

Dr. Molnar agreed that the program project activities are an excellent model for the kinds of things that ought to go on and the way they should be started. The program has been successful, which was not only his belief but that of the principal investigators with whom he has discussed the program. He felt, however, that there is a difficult issue of balancing the methodology with the categorical aspects.

Dr. Molnar then made the following suggestions: (1) The broad title of "computers in medicine" is misleading, making people think that NLM has covered the entire area. If there is a narrowing in scope, the title should be reexamined; (2) the suggestions made in the memorandum from Dr. Cummings to the Director of NIH (Attachment E) with regard to mounting a program of cooperation and participation by the various NIH institutes, are excellent and would be so even if there were enough money available. In part, this addresses the important issue of producing integration of some of the technical methodologies and substance matter of primary interest to the categorical institutes and undertakes the difficult intellectual endeavors that are neither pure methodology nor pure disease-oriented medicine. The Board of Regents should encourage the penetration of the information processing and computer methodologies deeper into the substance of the research activities of the categorical institutes.

Dr. Richard Friedman, newly designated Director of the LHC and NMAC, agreed that the NLM program has been effective and represents an investment in the future of computers in medicine. He also agreed that the name is a misnomer since the program represents only a segment of computers in medicine, while the name conjures up an all-encompassing activity. If the program is reformulated, he suggested that the emphasis be changed from the institution to the individual. He also felt that the institutes' involvement at NIH is a very important issue and speaks to the problem that has existed for a long time at NIH--that of no coordinated effort in computers in medicine. Once the extramural support is shared, the program will begin to be coordinated. He added that it is very important to have some improvement in the review element for work in this area. There should be somewhere within the system a group of people who maintain some overview and some sense of balance in the rather unstable balance of methodology and substance.

The Chairman then called on Dr. Doris H. Merritt, Special Assistant to the Director, NIH, who discussed the issues raised in Dr. Cummings' memorandum to Dr. Wyngaarden, regarding research support in the field of medical computing. She agreed that now that the program is advanced and the available NLM funds are being reduced, it is very clear that NIH must find a home for it where it will thrive. Dr. Merritt indicated that such a home may have been found, but it was too early to disclose the possible location. One of the major issues is not so much in the application of medical computing, but that NIH's mission lies in fundamental research.

Dr. Mayer asked staff to develop specifications for the announcement to the Research Training Grant Program to be reviewed by the Board at its January 1983 meeting. He noted that the appropriate role for the Library in the Training Program area should be clarified and sharpened, while at the same time the broader discussions as to computers in medicine and its support are continuing. Summing up the intent of the Board, Dr. Mayer listed two things that need to be accomplished: (1) expansion of the program, and (2) improved coordination of effort.

The Board unanimously passed a motion stating its strong support of the concepts expressed in the discussions regarding the Computers-in-Medicine Program, as well as those detailed in Dr. Cummings' memorandum of September 3, 1982, to Dr. Wyngaarden.

XV. DEMONSTRATIONS OF INFORMATION TRANSFER R&D PROGRAMS

Dr. William G. Cooper introduced Board members to demonstrations of a sampling of R&D applications of technologies currently under way in the Lister Hill Center and the National Medical Audiovisual Center. The demonstrations took place in the Lister Hill Center Auditorium with the following staff giving individual presentations: Dr. James W. Woods on "Microcomputer/Videodisc Applications," Mr. Roy A. Standing on "Advanced Terminal System," Dr. Tamas Doszkocs on "CITE Prototype Online Catalog," Mr. Charles M. Goldstein on the "Integrated Library System," and Dr. Elliott Siegel on the "Online Catalog Study."

XVI. ADJOURNMENT

The meeting was adjourned at 1:10 p.m., October 8, 1982.

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Wednesday, October 6, 1982, 2:00 to 3:30 p.m.  
(EP Subcommittee--List of Attendees and Attachment F)  
Thursday, October 7, 1982, 9:00 a.m. to 4:45 p.m.  
Friday, October 8, 1982, 9:00 a.m. to 1:10 p.m.  
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ACTIONS TAKEN BY THE BOARD OF REGENTS

1. The Chairman appointed additional members to the Board's three subcommittees.
2. The Board voted unanimously to reaffirm the MEDLARS policies adopted in October 1981.
3. The Board unanimously passed a motion stating its strong support of the concepts expressed in the discussions, regarding the Computers-in-Medicine Program, as well as those detailed in Dr. Cummings' memorandum to Dr. Wyngaarden. (Attachment E)
4. The Board presented the twelfth Regents' Award for Scholarship or Technical Achievement to Dr. John B. Blake.
5. The Board concurred with recommendations of the Extramural Programs Subcommittee. Grant applications recommended for approval are listed in the summary actions. (Attachment D)

I hereby certify that, to the best of my knowledge, the foregoing minutes and attachments are accurate and complete.

*Martin M. Cummings* *12/7/82*  
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Martin M. Cummings, M.D. (Date)  
Executive Secretary

*William D. Mayer* *12/24/82*  
\_\_\_\_\_  
William D. Mayer, M.D. (Date)  
Chairman

BOARD OF REGENTS OF THE NATIONAL LIBRARY OF MEDICINECHAIRMAN

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EXECUTIVE SECRETARY

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IN MEMORIAM  
Scott Adams 1909-1982

Scott Adams was born on November 20, 1909, in Agawam, Massachusetts; he died on October 3 in Louisville, Kentucky. In the intervening almost three quarters of a century, Adams was a key figure in medical librarianship in general and the National Library of Medicine in particular. His career at NLM spanned five Directors and two buildings. Adams came to the Army Medical Library on the Mall in 1945 with a B.A. in English from Yale and a MLS from Columbia University. He started as head of the Acquisitions Department. In 1947 he was appointed to the post of acting director, and in October 1949 he became assistant to the Director. He went to the National Institutes of Health as librarian in 1950 where he also organized and managed the Russian Scientific Information Program, and then to the National Science Foundation as director of Foreign Science Information, and then returned to NLM as deputy director, Extramural Programs in 1960.

After retiring from NLM in 1970 Adams worked for the International Council of Scientific Unions (ICSU) and the Foreign Secretariat, National Academy of Sciences, as their representative on the joint ICSU/UNESCO UNISIST study. He then assisted UNESCO, the National Science Foundation, and the Department of State on a variety of assignments relating to the initiation, development, and management of the UNISIST program. He participated in bilateral activities through the Academy and the Agency for International Development related to the development of national scientific information policy in Latin America, Taiwan, USSR and Egypt. During this period (1971-73) he was also senior scientist on the Biological Sciences Communication Project at George Washington University. In 1973 he moved to Louisville, Kentucky, to become a professor at the International Center for Education, University of Louisville.

Many of Adams' contributions to NLM are hidden in the pages of history. Adams was always delighted to let others get the credit. The important thing to him was that his ideas be implemented. His suggestions included starting the Bibliography of Medical Reviews (1955); decentralization of MEDLARS (1961); the idea of supplying camera-ready copies of recurring bibliographies to professional organizations that would then print and distribute them, and in 1966 his suggestions led to the development of the first moveable microfilm camera for filming interlibrary loans.

It can be argued that Adams was responsible for the start of three of the Library's major programs. He was brought back from NSF in 1960 as deputy director to plan extramural activities. In 1961 his work with Senator Humphrey's staff led to the drug information program that became Specialized Information Services. With the Director, he drafted the Joint Resolution on the establishment of the Lister Hill National Center for Biomedical Communications. And in 1966 he was the first coordinator of the Library Associates Program.

Adams' long career was not without honors. He was elected President of the American Society for Information Science in 1955, and of the Medical Library Association in 1967-68. He received the Superior Service Award of the Department of Health, Education and Welfare in 1969, was elected a Fellow of the American Association for the Advancement of Science in 1970. In 1978 he received the Medical Library Association's Marcia C. Noyes award for outstanding contributions to medical librarianship. In 1982, posthumously, he received the ASIS Special Book Citation for his cryptobiographical "Medical Bibliography in an Age of Discontinuity," (Medical Library Association, Inc., Chicago, IL. 1981) which also won the President's Award of the Medical Library Association.

Scotty, for almost 40 years, walked the corridors of power with grace, style and a quiet New England wit. We shall not see his like again.

STATEMENT BY INTERNATIONAL MEDLARS POLICY ADVISORY GROUP  
STOCKHOLM 8 SEPTEMBER 1982.

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The INTERNATIONAL MEDLARS POLICY ADVISORY GROUP represents health related scientific and educational institutions and libraries in 12 countries. We wish to emphasize that there is an existing and growing need to supply high quality information as efficiently and economically as is possible.

We view the MEDLARS system as the most valuable national and international resource which assists and enhances medical research, education and health care delivery throughout the world. The imaginative and innovative programs developed in NLM as the MEDLARS group of information services have become an integral part of the research cycle which creates new knowledge not only in the United States but in our own countries and therefore internationally. Any action which hinders the operation of this cycle by placing undue financial barriers in the way of those who make use of the information reduces the value of the investment which the taxpayer has already made in this important field.

Our relationships through bilateral arrangements, based on sharing knowledge, expertise and facilities with NLM have been in existence for 15 years. The result is an international medical and health care information network operating successfully and notably responsive to the needs of public health and society generally. The effective dissemination of medical information to all countries including those of the developing world has been greatly advanced.

We believe that our responsibilities and functions are fundamental to the public good and that this service could not adequately be undertaken by commercial profit making interests in whom we do not have the same level of confidence.

We therefore view with great concern the pressure being exerted on the U.S. National Library of Medicine by certain commercial information interests. The responsibility for the continued functioning and development of this system, fundamental to the health information needs of many countries, cannot be transferred to commercial enterprises but must remain firmly anchored in public sector authorities.

The allegations that NLM represents unfair competition are not valid. Each non U.S. MEDLARS Centre provides an equitable return to NLM in the form of services directly or indirectly by payments to U.S. information industry to perform these services for NLM. This contribution is equivalent to the costs for access to the MEDLARS system.

We ask that this expression of our concern and our support for NLM be made known to its parent organizations: The National Institutes of Health and Department of Health and Human Services.

Australia ..... *[Signature]* .....  
 Canada ..... *[Signature]* .....  
 Colombia ..... *[Signature]* .....  
 France ..... *[Signature]* ..... *[Signature]* .....  
 Germany ..... *[Signature]* .....  
 Italy (not represented at IMPAG 1982)  
 Japan ..... *[Signature]* .....  
 Mexico (not represented at IMPAG 1982)  
 South Africa ..... *[Signature]* .....  
 Sweden ..... *[Signature]* .....  
 Switzerland ..... *[Signature]* .....  
 United Kingdom ..... *[Signature]* .....  
 Biblioteca Regional de Medicina (Brazil) ..... *[Signature]* .....

INTERNATIONAL MEDLARS POLICY ADVISORY GROUP

September 7-8, 1982

AUSTRALIA

Mr. Harrison Bryan  
Director General  
National Library of Australia

CANADA

Mr. Elmer V. Smith  
Director  
Canada Institute for Scientific  
and Technical Information (CISTI)  
National Research Council

Mr. George Ember  
Chief, Library and  
Information Services, CISTI

COLOMBIA

Efraim Otero, M.D.  
Director, COLCIENCIAS  
Bogota, Colombia

FRANCE

Mrs. L. Degail  
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and Communication  
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J. Zeraffa, M.D.  
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GERMANY

Mr. H. Thimm  
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Rolf Fritz, Ph.D.  
President  
German Institute for Medical  
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JAPAN

Mr Teruo Ishikawa  
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The Japan Information Center of  
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Mr. Koji Tamura  
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The Karolinska Institute

Göran Falkenberg, M.D.  
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The Karolinska Institute Library  
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Professor Dr. Heinrich Wirz  
President of Kuratorium DOKDI  
Swiss Academy of Medical Sciences

Dr. Z. Urbanek  
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UNITED KINGDOM

Mr. Peter Lewis  
Director General  
Bibliographic Services Division  
The British Library

Mr. David Martin  
Director  
Automated Systems & Computer Services  
The British Library

PAN AMERICAN HEALTH ORGANIZATION

José Roberto Ferreira, M.D.  
Chief, Division of Human Resources  
and Research

Fernando Rodriguez Alonso, M.D.  
Director  
Biblioteca Regional de Medicina

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/  
(Arranged numerically by program)

COUNCIL DATE: NOVEMBER 1982

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 G08 LM 04030-01	NEUROSCIENCE HISTORY RESOURCE PROJECT	01 75,590 02 78,317 03 81,725
1 G08 LM 04045-01	STATEWIDE LIBRARY SUPPORT FOR DENTAL EDUCATION PROGRAMS	01 39,530 02 35,140 03 27,665

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/  
(Arranged numerically by program)

COUNCIL DATE: NOVEMBER 1982

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE	APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
	1 R01 LM 03793-01A1	EDUCATION FOR PUBLIC HEALTH: AN HISTORICAL ANALYSIS	01A1 33,197
	1 R01 LM 03993-01	THOMAS HODGKIN, MD, PHYSICIAN AND SOCIAL SCIENTIST	01 21,001
	1 R01 LM 04011-01	ERICH LINDEMANN: THE HUMANIST	01 21,200 02 23,070
	1 R01 LM 04014-01	HOSPITALS IN TWENTIETH CENTURY U.S., ENGLAND, AND WALES	01 18,645 02 6,923
	1 R01 LM 04019-01	DUAL: HS VALUATION METHODS AND ECONOMIC CRITERIA IN MEDICINE	01 28,476
	1 R01 LM 04047-01	THE MANUSCRIPT CONSULTATIONS OF IPPOLITO ALBERTINI	01 19,960 02 17,700
	1 R01 LM 04049-01	ASSESSMENT OF CARDIAC FUNCTION: A BASIC AND CLINICAL APPROACH	01 9,169
	DUALS: LM SECONDARY REVIEW		
	1 R13 RR 1627-01	COMPUTERIZED MEDICAL DECISION SUPPORT SYSTEMS WORKSHOP	01 16,000
	1 R01 AM 32038-01	META-ANALYSIS OF THE OBESITY TREATMENT LITERATURE	01 51,716

1/Approval recommendations are not final but are the basis upon which subsequent BID determinations and negotiations will determine final awards.

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/  
(Arranged numerically by program)

COUNCIL DATE: NOVEMBER 1982

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 R23 LM 04038-01		01 32,365
	COMPUTER-ASSISTED DECISION AIDS IN LABORATORY MEDICINE	02 35,909
		03 37,185

APPLICATIONS RECOMMENDED FOR APPROVAL BY COUNCIL 1/  
(Arranged numerically by program)

COUNCIL DATE: NOVEMBER 1982

INSTITUTE/DIVISION: NATIONAL LIBRARY OF MEDICINE

APPLICATION NUMBER	SHORT TITLE	AMOUNTS RECOMMENDED
1 G07 LM 03902-01A1	SINGLE-INSTITUTION GRANT	01A1 4,130
1 G07 LM 04013-01	SINGLE-INSTITUTION GRANT	01 4,500
1 G07 LM 04015-01	CONSORTIUM IMPROVEMENT GRANT	01 33,205
1 G07 LM 04026-01	CONSORTIUM IMPROVEMENT GRANT	01 26,888
1 G07 LM 04046-01	SINGLE-INSTITUTION GRANT	01 4,020
1 G07 LM 04048-01	SINGLE-INSTITUTION GRANT	01 4,000

**Memorandum**

Date            September 3, 1982

From            Director, NLM

Subject        Research Support for the Field of Medical Computing

To              Director, NIH

1. The national need for biomedical personnel trained in Computer Applications is clear. A recent National Science Foundation study surveyed computing in higher education. It reached two significant conclusions: "There is a major crisis in training computer scientists", and "other nations have recognized the role of computing in the development of their national plans and are investing in research and training with a focus and on a scale not found in the U.S." These conclusions apply with special force to the health sciences where the only integrated NIH effort is the National Library of Medicine's Computers in Medicine program. DRR provides research support to this field, e.g., Sumex AIM.
2. Every BID has a critical interest in the development of a new generation of information transfer methods. The conventional methods of information retrieval are reaching the limits of their usefulness. What is needed is supplementation of traditional bibliographic methods with effective means of condensing, organizing, identifying and manipulating the established knowledge of biomedicine. The emphasis needs to be shifted from document retrieval to information retrieval. The critical elements for such research lie not in computer hardware but rather in the intellectual collaborations of people expert in linguistics, cognitive psychology, artificial intelligence, symbolic logic and allied disciplines educated by biomedical scientists to deal with the specific structure and representation of biomedical knowledge. For lack of a better term, this field has come to be generally known as Medical Computing or Medical Informatics.
3. NLM has, for a decade, attempted to support research training, career development and research in this field. Many of the outstanding investigations in this field, such as Meyers and Pople at Pittsburgh, Shortliffe at Stanford, Szolovitz at MIT, Starmer at Duke, and Pauker at Tufts, are supported wholly or in part by this program. Moreover, NLM training programs at Duke, Tufts, Ohio State, Case-Western, University of California at San Francisco, Illinois (Urbana), Missouri, Medical College of Virginia and Minnesota have been the major means of attracting new investigators to this field as well as educating the faculties to the importance of these endeavors.

4. It is now clear that not only will the hoped-for increases in appropriations to support these activities not materialize but, in fact, NLM extra-mural support has in the past two years been cut by 25%. Our current resources are inadequate to even minimally sustain this program in its current form. Therefore, additional resources must be found or the program must be restructured or abandoned.
5. Because this program is of critical importance to American biomedicine, we request your help in examining options. The following possibilities have occurred to us:
  - (1) Convert the program to an NIH-wide undertaking with a coordinated administration and joint funding from all BIU's. NLM would be pleased to assume a lead agency role and act as administrator of the program in accordance with the policies set forth by an inter-Institute program policy committee. Alternatively, NLM would also be happy to be a participant in such a program responsible for basic research in knowledge representation under the aegis of some other institute's lead. The total cost of such an NIH-wide program supporting training, career development (new investigator and RCDA awards), and investigator initiated research at a minimal level would be ten (10) million dollars of which NLM is prepared to contribute one and one-half (1.5) million dollars. This total is predicated on an assumption of a seven million dollar pool for investigator initiated grants (\$2.33 million per year for three years); \$1.5 million for training grants, and \$1.5 million for new investigator and RCDA awards.
  - (2) Have each of the BID's assume such responsibility as they see fit within their program goals. Under such circumstances NLM would fund programs only if their fundamental orientation was information processing and would refer to the categorical institute programs which were utilization of these methods in some discipline (e.g., the Duke programs would be transferred to NHLBI).
  - (3) Have NLM continue its current program with the following modifications:
    - (a) With regard to research training:
      1. Categorical research fellowships and traineeships should pay the stipends in medical informatics

when the trainee is, in reality, a medicine discipline fellow (e.g., all the fellows at Duke are cardiology fellows).

2. Fellows and trainees in all categorical specialties should be permitted to rotate through medical informatics training programs for periods of three months to one year while being supported by the stipend of the categorical fellowship or training grant.
3. NLM will only pay the stipends of fellows who appear to have a career interest in the discipline of medical informatics as opposed to a medical categorical specialty.

(b) With regard to career development (new investigators and RCDA awards):

1. The BID's will recognize and support career development awards of those young investigators primarily interested in their specialty but who wish to use medical computing methods in their research. Study section review for such individuals can be joint with NLM or by a special Ad Hoc Review Group.
2. NLM will continue to support career development awards of those applicants whose career interest is in the field of Medical Informatics.

(c) With regard to research support:

1. NLM resources are inadequate to support an investigator initiated research program. NLM would, therefore, rescind its current announcements and seek, in coordination with its intra-mural research group, cooperative agreements with a small number of investigators to pursue fundamental research in knowledge representation.
6. We would welcome the opportunity to discuss these issues with you and to have your advice on these or other procedures that might contribute to the preservation of this important program at least at a minimal level.

  
Martin M. Cummings, M.D.

BOARD OF REGENTS  
EXTRAMURAL PROGRAMS SUBCOMMITTEE MEETING

October 6, 1982

ATTENDEES

Subcommittee Members Present:

Brig. Gen. Vernon Chong  
Dr. Gwendolyn S. Cruzat  
Dr. John L. Townsend  
Dr. Nicholas E. Davies (Consultant)

NLM Staff Present:

Dr. Martin M. Cummings, Director, NLM  
Dr. Harold M. Schoolman, Deputy Director for Research and Education, OD  
Dr. William G. Cooper, Acting Associate Director, EP  
Mr. Arthur J. Broering, Deputy Associate Director, EP  
Mrs. Helen Bennison, Grants Management Specialist, EP  
Mr. Peter A. Clepper, Program Officer, EP  
Mrs. Karin K. Colton, Committee Management Assistant  
Dr. Roger W. Dahlen, Chief, Biomedical Information Support Branch, EP  
Mrs. Frances E. Johnson, Program Officer, EP  
Mrs. M. Kathleen Nichols, Grants Management Specialist, EP  
Mrs. Marguerite L. Pusey, Administrative Officer, EP  
Mrs. Virginia M. Wantling, Secretary, EP  
Mr. Randall Worthington, Program Officer, EP